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THE

NATURAL HISTORY

OF

BIRDS.

FROM THE FRENCH OF THE

COUNT DE BUFFON.

ILLUSTRATED WITH ENGRAVINGS;

AND A

PREFACE, NOTES, AND ADDITIONS,
BY THE TRANSLATOR.

IN NINE VOLUMES.

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THE

THE

NATURAL HISTORY

OF

BIRDS.

The IBIS*.

OF all the superstitious practices that have ever degraded the human race, the worship of animals might be deemed the most abject and the most absurd: and yet did that propensity originate from the purest of motives. In the early ages of the world, man was on all sides encompassed by dangers, and had to struggle naked and unarmed against the formidable attacks of his numerous foes. Those animals, therefore, which conspired with his efforts to destroy and eradicate the hostile tribes, were na-

* In Greek Ιβις, which the Romans adopted. It has no name in European languages, as being unknown in our climates. According to Albertus, it was called in Egyptian *Leheras*. In Avicenna, the word *Anschuz* denotes the Ibis. St. Jerome was mistaken in translating *Janschuph* (*Leviticus*, ii. *Isaiah*, xxxiv.) by Ibis, for a nocturnal bird is meant in that passage. Some interpreters render the Hebrew word *Tinschemet* by Ibis.

 turally

turally entitled to his regard and affection. But the ſentiment of gratitude afterwards degenerated into veneration; and fear and intereſt, nouriſhing the groveling propenſion, both the uſeful and the pernicious creatures were alike exalted into the rank of gods.

Egypt is one of thoſe countries where animal-worſhip was of the higheſt antiquity, and obſerved with the moſt ſcrupulous attention, for many ages; and that humiliating ſpecies of idolatry, which is authenticated by all the monuments that have been tranſmitted to poſterity, ſeems to prove, that the original ſettlers had long contended with the noxious animals. In fact, crocodiles, ſerpents, graſshoppers, and all the other loathſome creatures, teemed in the deep and ſpacious mud, deluged by the annual inundation of the river. The heat of a tropical ſun foſtering the rich ſlime would engender infinite numbers of offenſive and ſhapeleſs beings, which would ſucceſſively be effaced, till the earth, purged of its impurities, was occupied by nobler inhabitants.

"Swarms of little venomous ſerpents," the early hiſtorians relate *, "roſe out of the ſlime "of marſhes, and flying in a great body towards "Egypt, would have entered into that country "and ſpread deſolation, had not the Ibis op- "poſed itſelf to their inroad, and repelled them."

* Herodotus, *Euterpe*, N° 76. Ælian, Solinus, Marcellinus, Pomponius Mela, *lib.* iii. 8.

Was

Was not this the ſource of the ſuperſtitious veneration paid to that bird? The prieſts encouraged the notions of the vulgar; when the gods, they ſaid, deigned to aſſume a viſible form, it was that of the Ibis. Their tutelar deity *Thoth* or Mercury, the inventor of arts and of laws, had already undergone that transformation *; and Ovid, faithful to this ancient mythology, in the battle of the gods and giants, conceals Mercury under the wings of an Ibis, &c †. But ſetting aſide all theſe fables, we have ſtill to examine the hiſtory of the combats between theſe birds and the ſerpents. Herodotus aſſures us, that he went to view the field of battle. "Near "the town Butus," he ſays, "on the confines of "Arabia, where the mountains open into the "vaſt plain of Egypt, I there ſaw immenſe "heaps of ſerpents' bones ‡." Cicero cites this paſſage §, and Pliny ſeems to confirm it, by ſaying, that the Egyptians invoke the Ibiſes againſt the invaſion of ſerpents ||.

We read alſo in the hiſtorian Joſephus, that when Moſes made war on the Æthiopians, he carried, in cages of *papyrus*, a great number of Ibiſes, to oppoſe them to the ſerpents ¶. This

* Plato in *Phædr.*
† Metam. *lib.* v.
‡ Herodotus, *Euterpe*, Nos 75 and 76.
§ Lib. i. *De Nat. Deorum.*
|| Hiſt. Nat. Lib. x. 28.
¶ *Antiq. Judaic.* lib. ii. 10.

ſtory, which is not very probable, is eaſily explained by a fact mentioned by Maillet, in his deſcription of Egypt: "A bird named *Pharaoh's* "*capon* (known to be the Ibis) follows more than "an hundred leagues the caravans in their "route to Mecca, for the ſake of the dung left "at the encampments, though at other times it "is never ſeen on that track *." We may preſume, that the Ibiſes thus accompanied the Hebrew nation in their march out of Egypt; and that Joſephus has disfigured the fact, by aſcribing to the prudence of the general what was due only to the inſtinct of the birds; and has introduced the army of Æthiopians and the cages of papyrus to embelliſh his narration, and to exalt our idea of the legiſlator of the Jews.

To kill the Ibis was, among the Egyptians, forbidden under pain of death †. That people, whoſe temper was equally gloomy and vain, invented the lugubrious art of preparing mummies, by which they endeavoured, we may ſay, to perpetuate death, and to counteract the benevolent views of nature, which, in compaſſion to our feelings, labours aſſiduouſly to efface every diſmal and funereal image. Not only were they ſolicitous to preſerve human bodies, they applied their ſkill in embalming to the ſacred animals. Many receptacles of mum-

* Deſcription de l'Egypt, *partie* II. p. 23.

† Herodotus, *uti ſupra.*

mies

mies which have been dug up in the plain of Saccara are called *bird-pits*, becauſe only birds are found embalmed, particularly the Ibis, contained in tall earthen pots, whoſe orifice is ſtopped with cement. We have received ſeveral of theſe veſſels; and in all of them we diſcovered a ſort of doll, formed by the bandages which encaſed the bird, of which the greateſt part fell into black duſt when the ligatures were removed. We could however perceive all the bones of a bird, with the feathers ſticking to ſome bits of fleſh that remained ſolid. From theſe fragments we could judge of the ſize of the bird, which was nearly equal to that of the curlew; and the bill, which was preſerved in two of the mummies, ſhowed the genus: it was as thick as that of a ſtork, was curved like the bill of the curlew, but not channelled: and as its curvature is equal throughout, we may place the Ibis between the ſtork and the curlews *. In fact, ſo nearly is it related to both theſe genera of birds, that the modern naturaliſts have ranged it with the latter, and the ancients had claſſed it with the former. Herodotus has diſtinctly characterized the Ibis, by ſaying that "its bill is "much hooked, and its legs like thoſe of the "crane." He takes notice of two ſpecies: "The firſt," he relates, "is entirely black; "the ſecond, which conſtantly occurs, is all

* See one of the bills repreſented by Edwards, *plate* 105.

"white, except the tips of the feathers of the "wing and tail, which are very black; and the "neck and head, which are only covered with "ſkin."

But I muſt here remove the obſcurity with which this paſſage of Herodotus has been involved by the ignorance of tranſlators, and which caſts an air of fable and abſurdity on the whole. A clauſe which ought to have been rendered literally, "*which oftener occur among* "*men's feet*," runs thus in their verſions, "*theſe* "*indeed have feet like men*." Naturaliſts, at a loſs to conceive the import of this odd compariſon, have ſtrained to explain or palliate it. They ſuppoſe that Herodotus miſtook the ſtork for the white ibis, and imagined its flat toes to reſemble thoſe of a man. But this interpretation was unſatisfactory; and the Ibis with human feet might have been rejected among the fables. Yet under this abſurd image was it admitted as a real exiſtence; and we cannot help being ſurprized to find at preſent this account inſerted in the memoirs of a learned academy *: though the chimera is only the production of the tranſlator of that ancient hiſtorian, whoſe candour in acknowledging the uncertainty of his narratives, when drawn from other information, ought to

* "The other ſpecies (the White Ibis) has its feet faſhioned "like the human feet." *Memoires de l'Academie des Inſcriptions & Belles Lettres*, tome ix. p. 28.

procure

procure him credit in ſubjects that came under his own obſervation.

Ariſtotle, too, diſcriminates two ſpecies of Ibis; he adds, that the white kind is ſpread over all Egypt, except near Peluſium, where only the black ones occur, which are ſeen in no other part of the country *. Pliny repeats this particular obſervation †. But all the ancients, at the ſame time that they remark the difference of the two birds in point of colour, aſcribe to them both the ſame common figure, habits, and inſtincts; and regard Egypt, in excluſion to every other country, as their proper abode ‡. If it was carried abroad, they alledge, it languiſhed out its days, conſumed by the deſire of reviſiting its native ſoil §. A bird ſo ardently attached to its country, naturally became the emblem of it: the figure of the Ibis, in the hieroglyphics, denotes Egypt, and few images or characters are oftener repeated on all the monuments. They appear on moſt of the obeliſks; on the baſe of the ſtatue of the Nile, at the Belvidere in Rome, and alſo in the garden of the Thuilleries at Paris. In the medal of Adrian, where Egypt appears proſtrate, the Ibis is placed at her ſide; and this bird is figured with an

* Hiſt. Animal. *lib.* ix. 27.

† Hiſt. Nat. *lib.* x. 30.

‡ Strabo places them alſo on a freſh-water lake, near Lichas, in the extremity of Africa.

§ Ælian.

 elephant

elephant in the medal of Quintus Marius, to ſignify Egypt and Lybia, the ſcenes of his exploits, &c.

If ſuch was the popular and ancient regard paid to the Ibis, it is not ſurprizing that its hiſtory has been charged with fables. It has been ſaid to procreate with its bill *: Solinus ſeems not to doubt this; but Ariſtotle juſtly ridicules the notion of virgin purity in this ſacred bird †. Pierius relates a wonder of an oppoſite kind; he ſays that, according to the ancients, the baſiliſk was hatched from an Ibis' egg, formed in that bird from the venom of all the ſerpents which it devoured. They have alſo aſſerted that the crocodiles and ſerpents, when touched with an Ibis' feather, remained motionleſs as if enchanted, and often died on the ſpot. Zoroaſter, Democritus, and Philo have advanced theſe tales; and other authors have repreſented it as living to an extreme age: the prieſts of Hermopolis pretended even that it might be immortal, and as a proof they ſhowed Appion an Ibis ſo old, they ſaid, that it was no more ſubject to death.

Theſe are but part of the fictions on the ſubject of the Ibis, fabricated in the religious land of Egypt: ſuperſtition ever runs into extremes; but if we conſider the political motives that

* Ælian.

† *De Generatione Animalium, lib.* iii. 6.

would

would induce a legiſlator to eſtabliſh the worſhip of uſeful animals, we muſt admit the neceſſity in that country of preſerving and multiplying them, in order to repreſs or extirpate the noxious tribes. Cicero * remarks judiciouſly, that no animals were held ſacred by the Egyptians but ſuch as merited regard from extreme utility to them: an † opinion moderate and wiſe, very different from the ſentence of the ſevere and violent Juvenal, who reckons the veneration paid to the Ibis among the crimes of Egypt; and inveighs againſt that worſhip, which ſuperſtition no doubt overſtrained, but which prudence ought to maintain; ſince ſuch is the weakneſs of man, that the moſt profound lawgivers have made that ſpurious paſſion the foundation of their ſtructures.

But to conſider the natural hiſtory of the Ibis,

* *Ægyptii nullam belluam, niſi ob aliquam utilitatem quam ex eâ caperent, conſecrârunt velut Ibes, maximam vim ſerpentium conficiunt, cum ſint aves excelſæ, cruribus rigidis, corneo proceroque roſtro; avertunt peſtem ab Ægypto, cùm volucres angues, ex vaſtitate Lybiæ, vento Africo invectas, interficiunt atque conſumunt, ex quo ſit ut illæ nec morſu vivæ noceant nec odore mortuæ; eam ob rem invocantur ab Ægyptiis Ibes.*—De Nat. Deor. *lib.* i.

M. Perrault has miſtaken the latter part of this ſentence. *Anciens Memoires de l'Academie*, tom. iii. partie 3.

† We can ſcarce give this as the reaſon of the worſhip of the crocodile: but that animal had adoration paid it only in a ſingle city of the Arſinoïte tribe, while its antagoniſt, the ichneumon, was venerated all over Egypt. Beſides, in this city of crocodiles, theſe deſtructive animals were worſhipped under the impreſſion of fear, with the idle view to detain them from viſiting a place whither the ſtream naturally never bore them.

we

we find it has a ſtrong appetite to feed on ſerpents, and even a ſort of antipathy to all reptiles. Belon aſſures us that it continues to kill them, though ſated with prey. Diodorus Siculus ſays, that night and day the Ibis, walking by the verge of the water, watches reptiles, ſearching for their eggs, and deſtroying the beetles and graſshoppers which they meet. Accuſtomed to reſpectful treatment in Egypt, theſe birds advanced without fear into the midſt of the cities. Strabo relates, that they filled the ſtreets and lanes of Alexandria to ſuch a degree as to become troubleſome and importunate, conſuming indeed the filth, but alſo attacking proviſions, and defiling every thing with their dung: inconveniencies which would ſhock the delicate and poliſhed Greek, though the Egyptians ſo groſsly ſuperſtitious, might cheerfully ſubmit to them.

Theſe birds breed on the palm-trees, and place their neſt in the thick bunches of the ſharp leaves, to be ſafe from the attacks of their enemies, the cats *. It appears that they lay four eggs, ſuch at leaſt is the number which we may infer from the explication given by Pignorius of the table of Iſiacus: He ſays, that the Ibis "makes its eggs after the manner "of the moon †;" which ſeems to have no

* Philo, *de propriet. Animal.*

† *Ad lunæ rationem ova fingit.* Menſ. Iſid. Explic. p. 76.

other

other import than what Dr. Shaw has noticed, that the bird lays as many eggs as the moon has phaſes. Ælian explains why the Ibis was conſecrated to the moon, and marks the time of its incubation, by ſaying that it ſat as many days * as the ſtar Iſis took to perform the revolution of its phaſes †.

Pliny and Galen aſcribe the invention of the clyſter to the Ibis, as they do the letting blood to the hippopotamus ‡: "Nor are theſe the "only things," the former adds, "in which "man has profitably imitated the ſagacity of "animals §." According to Plutarch, the Ibis uſes only ſalt-water for that purpoſe. Perrault, in his anatomical deſcription of this bird, aſſerts that he obſerved a hole in the bill, through which the water might be diſcharged.

We have ſaid that the ancients diſtinguiſhed

* Plutarch aſſures us that the young Ibis, juſt hatched, weighs two drachms. *De Iſid. & Oſir.*

† Clement of Alexandria, deſcribing the religious repaſts of the Egyptians, ſays, that among other diſhes they carried round among the gueſts an Ibis; this bird, by the black and white of its plumage, was the emblem of the dark and lucid moon. *Stromat.* lib. v. p. 671. And, according to Plutarch *(De Iſid. & Oſir.)* the lunar creſcent was repreſented by the diſpoſition of the white upon the black of the plumage.

‡ Galen. *lib. de Plebot.*

§ *Simile quiddam (ſolertiæ hippopotami, ſibi junco venam aperientis) & volucris in eadem Egypto monſtravit, quæ vocatur Ibis; roſtro aduncitate per eam partem perluens, quâ reddi ciborum onera maxime ſalubre eſt. Nec hæc ſola multis animalibus reperta ſunt uſui futura & homini.* Plin. *lib.* viii. 26.—Alſo Plutarch, *De Solert.*

two

two ſpecies of Ibis, the white and the black. We have ſeen only the white; and though Perrault ſays that the black ibis is oftener brought to Europe than the white, no naturaliſt has ſeen it ſince Belon, from whom we muſt give the deſcription.

No. 192

THE EGYPTIAN IBIS.

The WHITE IBIS.

Tantalus-Ibis. Linn. and Gmel.
Ibis Candida. Briff.
The Emfeefy or Ox-bird. Shaw.
The Egyptian Ibis. Lath.

THIS bird is fomewhat larger than the curlew, and fomewhat fmaller than the ftork: its length from the point of the bill to the end of the nails is about three feet and an half. Herodotus defcribes it as having tall naked legs; the face and front equally deftitute of feathers; the bill hooked; the quills of the tail and wings black, and the reft of the plumage white. To thefe characters we fhall add fome other properties not mentioned by the ancient hiftorian: The bill is rounded, and terminates in a blunt point; the neck is of an equal thicknefs throughout, and not clothed with pendant feathers like that of the ftork.

Perrault defcribed and diffected one of thefe birds, which had lived in the *menagerie* at Verfailles. He found, on comparing it with a ftork, that it was fmaller, but its bill and feet proportionally longer; that the feet of the ftork were only four parts of the whole length of the bird,

§

bird, while thoſe of the Ibis were five parts. He obſerved the ſame proportional difference to obtain between their bills and their necks. The wings appeared very large; their quills were black, and all the reſt of the plumage was white, inclined a little to ruſty, and diverſified only by ſome purple and reddiſh ſpots under the wings; the top of the head, the orbits, and the under ſide of the throat, were void of feathers, but covered by a red wrinkled ſkin; the bill was thick at the root, round, an inch and half in diameter, and curved the whole length; it was of a light yellow at its origin and deep orange near the extremity: the ſides of the bill were ſharp, and ſo hard that they might cut ſerpents *, which is probably the way that the bird takes to deſtroy them; for the tip being blunt it could ſcarce pierce them.

The lower part of the legs was red, and meaſured more than four inches; though Belon, in his figure of the black ibis, repreſents it as only one inch in length; both that part and the foot were entirely covered with hexagonal ſcales. The ſcales which incruſted the toes were cut into tablets, and the nails were pointed, ſtraight, and blackiſh. Both ſides of the mid-toe were bordered by the rudiments of a membrane, which, in the two other toes, appeared only on the inſide.

* *Corneo proceroque roſtro.* Cicero, *uti ſupra.*

Though the Ibis is not granivorous, its ventricle is a ſort of gizzard, whoſe inner membrane is rough and wrinkled. We have more than once remarked this incongruity in the ſtructure of birds; in the caſſowary, for inſtance, which does not feed on fleſh, the ſtomach is membranous like that of the eagle *.

Perrault found the inteſtines to be four feet eight inches long; the heart was of a middling ſize, and not extremely large, as Merula pretended; the tongue, which was very ſhort, and concealed at the bottom of the bill, was only a ſmall cartilage inveſted by a fleſhy membrane; which gave occaſion to Solinus' remark, that this bird had no bill. The globe of the eye was ſmall, not exceeding ſix lines in diameter. "This White Ibis," ſays Perrault, "and another which was kept at the *menagerie* at Verſailles, both of them brought from Egypt, were the only birds of this kind ever ſeen in France." According to him, all the deſcriptions of the modern authors have been borrowed from the

* An intereſting circumſtance in this deſcription concerns the paſſage of the chyle in the inteſtines of birds. Injections were made into the meſenteric vein of one of the ſtorks diſſected with the Ibis, and the liquor paſſed into the cavity of the inteſtines: and a portion of inteſtine having been filled with milk and tied at both ends, the compreſſed liquor paſſed into the meſenteric vein. Perhaps, adds the anatomiſt, this paſſage is common to all the tribe of birds; and as they exhibit no lacteal veins, we may juſtly conjecture, that this is the courſe of the chyle in paſſing from the inteſtines into the meſentery.

ancients. This remark appears to be juſt; for Belon did not recognize the White Ibis in Egypt, which is improbable, if he had not taken it for a ſtork.

[A] Specific character of the White Ibis, *Tantalus-Ibis*: "Its face is red, its bill yellow, its feet gray, its wing-quills black, its body tawny-whitiſh."

The BLACK IBIS.

Tantalus Niger. Gmel.
Numenius Holoſericeus. Klein.
Ibis Nigra. Charleton.

"THIS bird," ſays Belon, "is ſomewhat ſmaller than a curlew *;" it is ſmaller therefore than the white ibis, and muſt alſo be ſhorter: yet the ancients aſſert that the two ſpecies were ſimilar in every reſpect, except in colour. The preſent is entirely black; and Belon ſeems to inſinuate that the front and face are covered with bare ſkin, by ſaying that the head is like that of a *cormorant*. But Herodotus, who ſeems to have beſtowed attention on his two deſcriptions, does not repreſent the head and neck as featherleſs. The other characters and the habits are ſtated to be the ſame in both birds.

* "This Black Ibis is as high on legs as a bittern, and its bill is as thick as the thumb at its origin, pointed at the end, vaulted, and ſomething curved, entirely red, as are the thighs and the legs." *Obſerv. de Belon,* Paris 1555. liv. ii. p. 102.

[A] Specific character of the Black Ibis, *Tantalus Niger,* "Its face, its bill, and its feet, red; its body black."

The CURLEWS.

LES COURLIS. *Buff.*

FIRST SPECIES.

Scolopax-Arquata. Linn. and Gmel.
Numenius. Briff. Will. Klein, &c.
* *Numenius Arquata.* Lath.

THOSE words which imitate the cries of animals are the names aſſigned them by nature, and are the firſt which men have impoſed. The ſavage languages exhibit innumerable examples of theſe inſtinctive appellations, and they have been more or leſs preſerved in the poliſhed tongues; in the Greek eſpecially, the fineſt and the moſt deſcriptive. Without the name *elorios*, the ſhort deſcription which Ariſtotle gives of the Curlew would be inſufficient to diſtinguiſh it from other birds †. The French names

* In Greek Ελωριος or Νεμηνιος: in Latin *Numenius*, *Arquata*, *Falcinellus*: in Italian *Arcaſe*, *Torquato*: in German *Wind-Vogel*, *Wetter-Vogel*, (*wind-bird*, *weather-bird*); and on the Rhine, near Straſburg, *Regen-Vogel* (*rain-bird*): in Dutch *Hanikens*: in Daniſh *Heel-Spove*, and *Regen-Spaaer*: in Norwegian *Lang-neel*, *Spue*: in Lapponic *Guſgaſtak*.

† "The *elorios* is a bird that lives near the ſea, and like the rail; it feeds along the ſhore in fine weather."

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THE COMMON CURLEW.

names *courlis*, *turlis*, are words imitative of its voice *; and in other languages, the appellations *curlew*, *caroli*, and *tarlino*, &c. mark the ſame relation. The epithets *arquata* and *falcinellus* allude to the hooked form of its bill †: and ſo alſo does the term *numenius*, derived from *neomenia* or new moon; becauſe the bill reſembles the moon's creſcent. The modern Greeks denominate it *macrimiti*, or long noſe ‡, on account of the great length of its bill compared with that of the body. The bill is ſlender, furrowed, equally curved throughout, and terminated in a blunt point; it is weak, and its ſubſtance tender, and calculated only to dig up the worms from the ſoft earth. This character might ſet the Curlew at the head of a numerous tribe of birds, ſuch as the woodcocks, the ſnipes, the horſemen, &c. which, not being armed with a bill fit for catching or piercing fiſh, are obliged to ſubſiſt on the various inſects and reptiles that ſwarm in mud and in wet boggy grounds.

The neck and feet of the Curlew are long; the legs partly naked, and the toes connected near their junction by a portion of membrane. The bird is nearly as large as a capon; its total length about two feet; that of its bill five or ſix inches; its alar extent more than three feet.

* Belon.
† Geſner. He gives the ſame derivation of the Italian *Arcaſe*.
‡ Belon.

Its whole plumage is a mixture of light gray, except the belly and rump, which are entirely white; dafhes of brown are interfperfed over all the upper parts, and each feather is fringed with light gray or rufty; the great quills of the wing are of a blackifh brown *; the feathers of the back have a filky glofs; thofe of the neck are downy, and thofe of the tail, which fcarce extends beyond the wings, are, as well as the middle ones of the wing, interfected with white and blackifh brown. There is little difference between the male and the female †, which is only fomewhat fmaller ‡; and therefore the particular defcription which Linnæus has given of it § is fuperfluous.

Some naturalifts have afferted, that the flefh of the Curlew has a marfhy tafte; but it is much prized, and ranked by feveral with that of the water fowls ||. The Curlew lives on earthworms, infects, periwinkles, &c. which it gathers on the fea-beach, or in the marfhes and wet meadows ¶: its tongue is very fhort, and

* On account of the mottled plumage of the Curlews, Schwenckfeld terms them *pardales*; but unfortunately for the refinements of nomenclature, that name would rigoroufly exclude more than half of the fpecies of Curlews.

† Belon.

‡ Willughby.

§ *Numenius Rudbeckii.* Fauna Suecica, N° 139.

|| Willughby and Belon.

¶ *Idem.* Willughby fays, that he once found a frog in its ftomach.

concealed

concealed at the bottom of the bill. Small pebbles *, and ſometimes grain †, are found in its ſtomach, which is muſcular like that of the granivorous birds ‡. The *œſophagus* is inflated like a bag, and overſpread with glandulous *papillæ* §. There are two *cæca* of three or four fingers length ||.

Theſe birds run very ſwiftly ¶, and fly in flocks: they are migratory in France, and hardly ſtop in the interior provinces; but they reſide in the maritime diſtricts, as in Poitou **, Aunis, and in Brittany along the Loire, where they breed ††. It is affirmed, that in England they inhabit the coaſts only in winter, and that in ſummer they retire to neſtle in the upland country ‡‡. In Germany they arrive in rainy weather when the wind is in a certain quarter; for the different names there applied to them allude to torrents, or tempeſts. They are ſeen alſo in Sileſia about autumn ||||, and they advance

* Geſner.

† Albin.

‡ Willughby.

§ *Idem.*

|| *Idem.*

¶ Hence probably Heſychius has erroneouſly applied the name *trochilus* to the Curlew, which belongs to the gold-creſted wren. Clearchus indeed mentions a *trochilus*, which muſt be either the courier, or ſome of the ſmall dunlins or collared plovers, which frequent the ſhores and run with ſpeed.

** In Poitou thouſands are ſeen entirely gray. *Salerne.*

†† *Idem.*

‡‡ Britiſh Zoology, and Borlaſe's *Nat. Hiſt. of Cornwall.*

|||| Schwenckfeld.

 in

in ſummer as far as the Baltic ſea *, and the gulph of Bothnia †. They are found too in Italy and in Greece; and it appears that their migrations extend beyond the Mediterranean, for they paſs Malta twice a year, in the ſpring and autumn ‡. Voyagers have diſcovered Curlews in almoſt every part of the world §; and though their accounts refer for the moſt part to different foreign branches of this family, it appears the European kind occurs at Senegal ‖, and in Madagaſcar, ſince the bird repreſented,

* Klein.

† *Fauna Suecica.* Brunnich. *Ornith. Boreal.*

‡ Obſervation communicated by the Commander Deſmazy.

§ Curlews are found in New Holland and in New Zealand. *Cook.*—Numerous in the ſalt-marſhes of Tinian. *Anſon.*—In Chili. *Frezier.*—In an excurſion on Statenland, we took new ſpecies of birds, among others a handſome gray curlew; its neck was yellowiſh; it was one of the moſt beautiful birds we had ever ſeen. *Forſter.*—In the iſle of May (one of the Cape de Verd Iſlands) we found curlews. *Roberts.*—The country of Napal breeds different ſorts of birds . . . great numbers of ducks . . . Others are very much like our curlews, their fleſh hard, but good to eat, *Dampier.*—In the bay of Campeachy there are ducks, curlews, pelicans, &c. *Idem.*—There are two ſorts of curlews, that differ in bulk as well as in colour; the largeſt are equal to turkey-cocks; (this ſeems exaggerated) their legs are long, and their bill hooked; they are of a dull colour; their wings are mixed with black and white; their fleſh is black, but very good and wholeſome. The Engliſh call them *double curlews*, becauſe they are twice as large as the biggeſt of the others. The little curlews are of a dull brown; their legs and their bill are the ſame with thoſe of the preceding; they are more eſteemed than the others, becauſe their fleſh is more delicate. *Idem.*

‖ There are many water fowl in the marſhes of Senegal, ſuch as curlews, woodcocks, teals. *Adanſon*, p. 138.

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N° 198, *Planches Enluminées*, is ſo like our Curlew, that it may be regarded as of the ſame ſpecies, differing only by the greater length of its bill and the diſtinctneſs of its colours. Sometimes White Curlews are to be met with *, but they are only individual varieties or accidental degradations.

* Salerne.

[A] Specific character of the Curlew, *Scolopax-Arquata*. "Its bill is arched; its feet blueiſh; its wings black, with ſnowy ſpots." It lays four eggs of a pale olive, marked with duſkiſh ſpots. It weighs between twenty-two and thirty-ſeven ounces.

The WHIMBREL.

Le Corlieu, ou Petit Courlis. *Buff.*

SECOND SPECIES.

Scolopax-Phæopus. Linn. and Gmel.
Numenius Minor. Briſſ.
Arquata Minor. Ray and Will.
* *Numenius-Phæopus.* Lath.

THE Whimbrel is one half leſs than the common curlew, which it reſembles in its form, in the ground of its colours, and even in their diſtribution; it has alſo the ſame habits and mode of life. Yet they are two diſtinct ſpecies; for, beſides their great inequality of bulk, they never aſſociate together. The Whimbrel ſeems in particular to be attached to England, where, according to the authors of the Britiſh Zoology, it is more frequent than the curlews †. On the contrary, it is very rare in the provinces of France, and is probably not more common in Italy; for Aldrovandus gives

* In Italian *Tarangolo*, or *Taraniolo*; in Daniſh *Mellem-Spove*: in Norwegian *Smaae Spue.*

† This is a miſtake; Mr. Pennant ſays directly the reverſe "The Whimbrel is much leſs frequent on our ſhores than the "curlew."—T.

but

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THE WHIMBREL.

but a confufed account of it from Gefner, and copies the miftake of that naturalift, who introduces the Whimbrel twice among the aquatic birds, under the different names *phæopus* and *gallinula*. Willughby firft noticed this overfight of Gefner's. The *little ibis* defcribed by Edwards, is undoubtedly a Whimbrel, only its plumage is altered by moulting, as that naturalift remarks *.

* Mr. Edwards' *little ibis* is certainly a Whimbrel, only it was in moult. The bird *torea* of the Society Ifles, called in Cook's Voyage *a little curlew*, feems not to belong to that family, fince it is faid to be found *about fhips*.

[A] Specific character of the Whimbrel, *Scolopax-Phæopus*: "Its bill is arched, its feet blueifh, brown rhomboidal fpots on its back." Its weight exceeds not twelve ounces.

The GREEN, or ITALIAN CURLEW.

THIRD SPECIES.

Tantalus-Falcinellus. Linn. and Gmel.
Numenius Viridis. Briff.
Numenius Subaquilus. Klein.
Falcinellus. Gefn. Johnft. Will.
The Scythe Bill. Ray.
The Bay Ibis. Penn. and Lath.

THIS is nearly as large as a heron, according to Aldrovandus, and among the Italians it has fometimes that name. The appellation *falcinellus*, which that naturalift and Gefner feem to have beftowed only on this fpecies, might be extended to all the other curlews, which have their bills equally hook-fhaped. In the prefent, the head, the neck, the fore part of the body, and the fides of the back, are of a fine deep chefnut; the upper fide of the back, of the wings, and of the tail, are green gloffed with gold or bronze, according to pofition with regard to the light; the bill is blackifh, as well as the feet and the naked part of the leg. Gefner defcribes only a yellow bird, which had not attained its fize or its colours. This curlew,

curlew, which is common in Italy, occurs too in Germany *; and the Danube curlew of Marſigli, cited by Briſſon, is apparently a variety of the ſame ſpecies.

* According to Geſner, it is called in German *Welſcher-Vogel*, (Italian bird); *Sichler* (ſickler); *Sagiſer* (ſawyer.)

[A] Specific character of the *Tantalus-Falcinellus*; "Its face is black, its feet blue, its wings and tail violet, its body cheſnut."

The BROWN CURLEW.

FOURTH SPECIES.

Tantalus Manillensis. Gmel.
The Manilla Ibis. Lath.

SONNERAT found this Curlew in the isle of Luçon, one of the Philippines. It is as large as the common European curlew: all its plumage is rufous brown; its eyes are encircled with a greenish skin; its iris flame-coloured; its bill greenish; and its feet of a lacker-red.

The SPOTTED CURLEW.

FIFTH SPECIES.

Scolopax Luzonienſis. Gmel.
The Luzonian Curlew. Lath.

THIS Curlew alſo is found in the iſle of Luçon. It too reſembles the European kind, only is one-third ſmaller. It is diſtinguiſhed beſides, becauſe the crown of its head is black, and its colours differently diſtributed; they are ſcattered on the back in ſtreaks on the edge of the feathers, and on the belly in waves or tranſverſe breaks.

The BALD CURLEW.

LE COURLIS 'A TETE NUE. *Buff.*

SIXTH SPECIES.

Tantalus Calvus. Gmel.
The Bald Ibis. Lath.

THIS ſpecies of Curlew is new and very ſingular: its whole head is naked, and on the top is a ſort of roll five lines thick, flattened back, and covered by a very red and thin ſkin, immediately under which we perceive a bony protuberance; the bill is of the ſame red with this crown; the top of the neck and the fore part of the throat are alſo bare of feathers; and the ſkin is, no doubt, vermilion in the living ſubject, but was livid in the dried ſpecimen which we deſcribe, and which was brought from the Cape of Good Hope by M. de la Ferté. It has entirely the form of the European curlews, only ſtronger and thicker; the ground of its plumage is black, and on the feathers of the wings there is a varying green and purple gloſs; the ſmall coverts of the wings are of a deep purple violet, but lighter on the back,

back, the neck, and the under ſide of the body; the feet and the naked part of the leg, for the ſpace of an inch, are red like the bill, which is four inches and nine lines long. This Curlew, meaſured from the point of the bill to the extremity of the tail, is two feet and an inch, and in its natural attitude it is a foot and an half tall.

The CRESTED CURLEW.

SEVENTH SPECIES.

Tantalus Criſtatus. Gmel.
The Creſted Ibis. Lath.

THE creſt diſtinguiſhes this Curlew from all the reſt, in which the head is more or leſs ſmooth, or covered with very ſhort little feathers; this, on the contrary, has a fine tuft of long feathers, partly white and partly green, which fall back; the fore-ſide of the head, and the compaſs of the top of the neck, are green; the reſt of the neck, the back, and the fore-part of the body, are of a fine cheſnut rufous; the wings are white; the bill and feet are yellowiſh; a broad portion of naked ſkin ſurrounds the eyes; the neck, which is well clothed with feathers, is not ſo long or ſlender as in the other curlews. This beautiful bird is found in Madagaſcar.

Theſe ſeven ſpecies of Curlews belong all to the ancient continent; there are eight which inhabit the new.

CURLEWS of the NEW CONTINENT.

The RED CURLEW *.

FIRST SPECIES.

Tantalus Ruber. Linn. and Gmel.
Numenius Brasiliensis Coccineus. Briss.
Guara Brasiliensibus. Marcg. Will. Johnst. &c.
Avis Porphyrio Amboinensis. Seba.
Numenius Ruber. Klein.
The Scarlet Ibis. Lath. and Penn.

THE low slimy grounds contiguous to the sea, and the great rivers of South America, are inhabited by many species of Curlews: the most beautiful of these, and the most common in Guyana, is the present: all its plumage is scarlet, except the tip of the first quills of the wing, which is black; the feet, the naked part of the legs, and the bill, are red or reddish †, and also the bare skin that covers the fore part of

* Buffon and Catesby.

† This colour of the bill may vary. Marcgrave says, that it is *cinereous-white*: Clusius, that it is *ochry-yellow*.

 the

the head, from the origin of the bill to beyond the eyes. This Curlew is large, but not ſo thick as the European; its legs are taller, and its bill longer and ſtronger, and much thicker near the head. The female has its plumage of a fainter red than the male *, and neither of them acquires that beautiful colour till the proper age; for at firſt they are covered with a blackiſh down †, then cinereous, and afterwards white, when they begin to fly ‡, ſo that the fine red is introduced by ſucceſſive gradations, does not appear before the ſecond or third year, and turns brighter as the bird grows older.

Theſe birds keep together in flocks, whether they fly or perch on trees, where their number and their flame-coloured plumage render them conſpicuous objects §. Their motion through the air is ſteady and even rapid, but is performed only in the morning and evening; during the heat of the day they enter the creeks, and enjoy the cool ſhade of the mangroves; at three or four o'clock they return to the mud, which they again quit to paſs the night under the branches and foliage. Seldom one of theſe Curlews is ſeen alone, or if one ſhould happen

* Cateſby.

† Marcgrave.

‡ De Laët.

§ "The guaras fly in flocks, and their ſcarlet plumage forms "a very beautiful ſpectacle in the beams of the ſun." *Hiſt. Gen. des Voy.* tom. xiv. p. 304.

to

to ftray from the flock, it haftens to join its companions. But thefe focieties are diftinguifhed by their age, the old birds keeping feparate from the young. Their hatches begin in January and end in May; they lay their eggs, which are greenifh, in the large plants that grow under the mangroves, or amidft the brambles, on fome fticks collected. The young ones may eafily be caught by the hand, even when the mother leads them out to fearch for infects and fmall crabs, which are their principal food: they are not wild, and they foon become reconciled to the domeftic ftate. "I reared one," fays M. de la Borde, "which I have kept up-
"wards of two years; it fed out of my hand
"very familiarly, and never miffed the time of
"dinner and fupper: it ate bread, flefh either
"raw, dreffed, or falted, fifh, every thing in fhort
"was acceptable; it fhowed however a pre-
"ference to fowls' and fifhes' guts, and with that
"view it frequently paid a vifit to the kitchen.
"At other times it was conftantly employed
"feeking earth-worms, either round the houfe
"or in the garden befide the negro who was at
"work on the ground. In the evening it re-
"tired of its own accord into a hen-houfe, where
"it repofed with an hundred fowls: it roofted
"on the higheft bar, and with violent ftrokes of
"its bill drove off all the hens that had occu-
"pied its place; and often during the night it
"took pleafure in annoying its fellow-lodgers.

"It was rouzed early in the morning, and began by making three or four circuits round "the houſe; ſometimes it went to the ſea-"ſhore, but did not ſtop there. I never heard "it utter any cry except a little croaking, which "ſeemed to be an expreſſion of fear at the ſight "of a dog or other animal. It had a great antipathy to cats, but did not fear them; ran fierce "and undaunted upon them. It was killed near "the houſe in a bog by a ſportſman, who took "it for a wild curlew."

This account given by M. de la Borde, correſponds with that of Laët; who adds, that he has ſeen ſome of theſe birds copulate and breed in the ſtate of domeſtication. We preſume, therefore, that it would be equally eaſy and agreeable to rear and propagate this beautiful ſpecies, which would be an ornament to our court-yards *, and add perhaps to the pleaſures of the table; for its fleſh, which is already tolerably pleaſant, might be improved, and might loſe its ſlight marſhy taſte †: beſides, living on the offals and garbage of the kitchen, it would coſt little for maintenance.—We know not whether,

* At the time that I wrote this, there was a Red Curlew living in the menagerie of his Royal Highneſs the Prince of Conde, at Chantilly.

† "It is eaten in ragouts, and makes tolerable ſauce; but it "muſt be previouſly half-roaſted to diſcharge part of its oil, "which has a brackiſh taſte." *Note given by a coloniſt of Cayenne.*—"The fleſh of the curlew is a diſh much eſteemed." *Eſſay on the Natural Hiſtory of Guiana*, p. 172.

as

as Marcgrave ſays, this Curlew ſoaks previouſly in water whatever it eats.

In the ſtate of nature, theſe birds live on fiſh, ſhell-fiſh, and inſects, which they find in the ſlime at ebb-tide. They never go very far from the ſea-coaſt, nor advance up the rivers to a conſiderable diſtance from their mouths. They reſide through the whole year in the ſame diſtrict, only ſhifting from one part to another. The ſpecies is however diffuſed through moſt of the hot countries of America *. It is found at the mouths of the *Rio-Janeiro* †, of the *Maragnon*, &c. in the Bahama Iſlands ‡, and in the Antilles §. The Indians of Brazil, who are fond of decking themſelves with their beautiful feathers, call theſe Curlews by the name of *guara* ‖. The appellation *flammant*, which they receive in Cayenne, refers to the flame-colour of their plumage; and the coloniſts have very improperly beſtowed the ſame term on all the curlews. With equal inaccuracy the voyager Cauche confounds with it his violet Madagaſcar Curlew ¶.

* Cateſby.

† Marcgrave.

‡ Cateſby.

§ Sloane.

‖ Barrere.

¶ "The herons of this country (Madagaſcar) have large thick "bills, which bend gradually downwards after the faſhion of a "Poliſh cutlaſs; their feathers are violet; the wings terminate "with the tail; their thighs, as far as the knot of the leg, are co-"vered with little feathers; their legs long and waſhed with gray: "the

" the chicken is black, and as it grows it turns cinereous, then " white, then red, and at laſt columbine, or light violet: it lives on " fiſh. There are ſimilar birds in Brazil called *guara*; the figure " occurs in Marcgravius." *Voyage à Madagaſcar & au Breſil*, par Franc. Cauche, *Paris* 1651. p. 133.

[A] Specific character of the *Tantalus Ruber*: " Its bill, its " face, and its feet, are red; its body blood-coloured; the tips of " its wings black."

The WHITE CURLEW*.

SECOND SPECIES.

Tantalus Albus. Gmel.
Scolopax Alba. Linn.
Numenius Albus. Klein.
Numenius Brafilienfis Candidus. Briff.
The White Ibis, Penn. and Lath.

WE might reckon this a red curlew having its firft colour; but Catefby, who knew both, conceives it to be a different fpecies. It is larger; its feet, its bill, its orbits, and the forefide of its head, are of a pale red; all the plumage is white, except the four firft quills of the wing, which, at their extremity, are of a dull green. Great numbers of thefe birds arrive in Carolina about the middle of September, which is the rainy feafon: they frequent the low marfhy grounds, where they remain about fix weeks, and then difappear; retiring probably to the fouth, to breed in a warmer climate. Catefby fays, that he found clufters of eggs in many females fhortly before their departure from Carolina. They differ not from the males in regard to colours; both of them have their flefh and fat yellow, like the pheafant.

* Buffon and Catefby.

The RED-FRONTED BROWN CURLEW.

THIRD SPECIES.

Tantalus Fuſcus. Gmel.
Scolopax Fuſca. Linn.
Numenius Braſilienſis Fuſcus. Briſſ. and Klein.
Arquata Cinerea. Barrere.
The Brown Curlew. Cateſby.
The Brown Ibis. Penn. and Lath.

THESE Brown Curlews arrive in Carolina with the white curlews, and intermingled with their flocks. They are of the ſame ſize, but fewer, "*there being twenty white curlews,*" ſays Cateſby, "*to one brown.*" They are entirely brown on the back, the wings, and the tail; brown-gray on the head and the neck; and all white on the rump and the belly: the fore part of the head is bald, and covered with a pale red ſkin; and the bill and feet are alſo of that colour. Like the white curlews, they have yellow fleſh and fat. Both ſpecies arrive and depart together; they paſs in winter from Carolina to the more ſouthern climates, ſuch as Guyana, where they are termed the *gray flammants.*

The WOOD CURLEW.

Le Courlis des Bois. *Buff.*

FOURTH SPECIES.

Tantalus Cayanensis. Gmel.
The Cayenne Ibis. Lath.

THIS ſpecies, which the ſettlers at Cayenne denominate the *wood flammant*, lives in the foreſts beſide the brooks and rivers, and far from the ſea-coaſt, which the other curlews ſeldom ever leave. Its habits too are different; it never goes in flocks, but only in company with its female. It fiſhes, ſitting on wood that floats in the water. It is not larger than the green curlew of Europe, but its cry is much ſtronger. Over its whole plumage is ſpread a very deep green tint, on a dull brown ground, which at a diſtance appears black, and viewed near exhibits rich blueiſh or greeniſh reflections: the wings and the top of the neck have the colour and luſtre of poliſhed ſteel; on the back are bronze reflections, and on the belly and the lower part of the neck a purple gloſs: the cheeks are bare of feathers. Briſſon takes no notice of this ſpecies, though Barrère has mentioned it twice under the appellations of *arquata viridis ſylvatica*, and *flammant des bois*.

[A] Specific character of the *Tantalus Cayanenſis*: "Its face is "dull reddiſh, its bill obſcure; its body black, with a green gloſs."

The GUARONA.

FIFTH SPECIES.

Scolopax-Guarauna. Linn. and Gmel.
Numenius Americanus Fuſcus. Briſſ.
Numenius-Guarauna. Lath. Ind.
Guarauna. Piſon. Marcg. Johnſt. Ray. and Will.
The Braſilian Whimbrel. Lath. Syn.

GUARA, we have ſeen, is the Brazilian name of the red curlew. *Guarana* or *Guarona* is beſtowed on this ſpecies, whoſe plumage is cheſnut-brown, with green reflections on the rump, on the ſhoulders, and on the outer edge of the quills of the wing; the head and neck are variegated with ſmall longitudinal whitiſh lines on a brown ground. This bird is two feet long from the bill to the nails *: it bears a great reſemblance to the green curlew of Europe, and appears to be the repreſentative of that ſpecies in the new world. Its fleſh is tolerably good, according to Marcgrave, who ſays that he often ate of it. It occurs both in Brazil and in Guyana.

* Marcgrave ſays, that it is of the bulk of the *iacu*; but the yacou is ſcarcely ſo large as an ordinary hen, a ſize which exactly correſponds to a curlew.

[A] Specific character of the *Scolopax-Guarauna*: "Its bill is "arched and yellowiſh; its feet brown; its head brown ſtriped "with white."

The ACALOT.

SIXTH SPECIES.

Tantalus Mexicanus. Gmel.
Numenius Mexicanus Varius. Briſſ.
Corvus Aquaticus. Nieremb. Fernand. Will. &c.
The Mexican Ibis. Lath.

WE abridge the name *acacalotl*, beſtowed on this curlew in Mexico, into *Acalot*: it is indigenous in that country; and, like moſt of the reſt, its front is bald and covered with a reddiſh ſkin: its bill is blue; the neck and back of the head clothed with feathers, which are brown intermixed with white and green; the wings ſhine with green and purple reflections. And theſe characters have probably induced Briſſon to denominate it the *variegated curlew*; but it is eaſy to ſee, from the appellation of *water raven* given by Fernandez and Nieremberg, that theſe colours are laid on a dark ground approaching to black. Adanſon, remarking that this bird differs from the European curlews in having its front bald, ranges it, on account of that property, with the ibis, the *guara*, and the *curicaca*, of which he makes a diſtinct genus. But the character by which he diſcriminates it from the curlews

curlews appears inſufficient; ſince it has in other reſpects a ſimilar form, and that difference is introduced by ſucceſſive gradations, inſomuch that ſome ſpecies, the green curlews for inſtance, have only a bare ſpace round the eyes, while others, ſuch as the preſent Acalot, are naked on a great part of the front. We have ſeparated the *curicaca* from the curlews, on account of its magnitude and ſome other eſſential differences, particularly the ſhape of its bill.—We do not underſtand why this learned naturaliſt claſſed theſe birds with the lapwings *.

* See Supplement to the Encyclopedie, article *Acacalotl*.

The SHORE MATUITUI.

Le Matuitui des Rivages. *Buff.*

SEVENTH SPECIES.

Tantalus Grifeus. Gmel.
Numenius Americanus Minor. Briff.
Matuitui. Pifon. Marcg. Will. Johnft. &c.

If we were better acquainted with this bird, we fhould perhaps feparate it, as well as the curicaca, from the curlews; fince Marcgrave and Pifon fay that it is like the curicaca, though on a fmaller fcale, which is disjoined from the curlews, both by its bulk and the character of its bill; and till that character be known we cannot affign its rank. We may obferve, however, that the appellation of *little curlew* given by Briffon is improper, for it is nearly as large as a hen, and therefore of the firft magnitude in the genus of curlews.—This Shore Matuitui differs from the other little matuitui mentioned by Marcgrave in another place, which is hardly larger than a lark, and appears to be a little ringed plover.

The GREAT CURLEW of CAYENNE.

EIGHTH SPECIES.

Tantalus Albicollis. Gmel.
The White-necked Ibis. Lath.

IT is larger than the European curlew, and ſeems to be the greateſt of all the curlews. The whole of its upper ſurface, the great quills of its wings, and the fore ſide of its body, is brown, waved with gray and gloſſed with green; the neck is ruſty white, and the great coverts of the wing are white. This deſcription ſuffices to diſtinguiſh it from the reſt of the curlews.

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THE LAPWING.

The LAPWING.

LE VANNEAU. *Buff.*

FIRST SPECIES.

Tringa-Vanellus. Linn. and Gmel.
Capella. Gesner.
Vanellus. Aldrov. Ray, Will. Johnst. Sibb, &c.
Gavia Vulgaris. Klein.
The Lapwing, Bastard Plover, or Pewit. Alb. Will. Penn. and Lath.

THE * appellation of this bird, in modern Latin, in French, and in English, alludes to the incessant flapping of its wings. The Greeks, besides giving it other names expressive of its cry, denominated it *the wild peacock* (Ταως αγριος), on account of its crest and its elegant colours: yet this crest is very different from

* The Greeks applied to this bird the name of goat, Αιξ, and Αιγα, on account of its cry: in modern Latin it is for the same reason termed *Capella*; the term *Vanellus*, from *Vannus*, a fan, was given it because of the frequent and noisy flapping of its wings: and hence too the French name *Vanneau*, and the English Lapwing. In German it is called *Kwyit* and *Himmel-Geiss (sky-goat)*: in Swiss *Gyfitz, Gywitz, Blaw Gruner Gyfitz*: in Dutch *Kwidt*: in Portuguese *Byde*: in Polish *Czayka Kozielek*: in Swedish *Wipa, Kowipa Blæcka*: in Danish *Vibe Kivit*: in Turkish *Gulguruk*: in Italian *Paonzello*, or *Pavonzino*, (i. e. little peacock): in many of the French provinces it is termed *dix-huit, pivite, kivite*: in some parts of England it has the appellation *pewit*: and all these names, and many others also, have nearly the same sound, and are evident imitations of the bird's cry, *pēw-ēēt.*

that

that of the peacock, it confifting only of fome long unwebbed and very flender feathers; and of its plumage, the under fide is white, the upper of a dark caft, and it is only when held clofe to the eye that we can perceive the brilliant gold reflections. In fome parts of France, the Lapwing has the denomination of *dix-huit* (eighteen) becaufe thefe two fyllables, pronounced faintly, exprefs, with tolerable accuracy, its cry. which many languages have endeavoured to denote by imitative founds *. In rifing up it vents one or two fcreams, which it often repeats at intervals as it flies, even during the night †: its wings are powerful, and much exercifed; for in the air it long maintains its flight, and rifes to a great height, and on the ground it fprings and bounds, and fkims from fpot to fpot.

The Lapwing is joyous, and perpetually in motion; it fports and frolics a thoufand ways in the air; it affumes, at times, every imaginable pofture, its belly fometimes even turned upwards or fidewife, and its wings expanded perpendicularly; and no bird wheels and flickers fo nimbly.

The Lapwings arrive in our meadows in great flocks about the beginning of March, or even as early as the end of February, after the firft open weather, when the wind is foutherly. At this

* *Gyfytz, Giwitz, Kiwitz, Czieik*, &c.

† It imitates the tremulous voice of a goat, while it flies in the night-time. *Rzacynfki.*

feafon

ſeaſon they alight in the fields of green corn *, or in the morning cover the low marſhy grounds in ſearch of worms, which they dextrouſly draw from their holes: when the bird meets with one of thoſe little cluſters of pellets, or rolls of earth, which are thrown out by the worm's perforations, it firſt gently removes the mould from the mouth of the hole, ſtrikes the ground at the ſide with its foot, and ſteadily and attentively waits the iſſue; the reptile, alarmed by the ſhock, emerges from its retreat, and is inſtantly ſeized †. In the evening the Lapwings purſue a different plan; they run along the graſs, and feel under their feet the worms, which now come forth, invited by the coolneſs of the air: thus they obtain a plentiful meal, and afterwards they waſh their bill and feet in the ſmall pools or rivulets.

Theſe birds are difficult to be approached, and ſeem to deſcry the fowler at a great diſtance: we can gain nearer them in a ſtrong wind, for then they fly with difficulty. When they are congregated and ready to riſe together, they all flap their wings with an equal motion; and as they keep cloſe to each other, and their

* Belon, Nat. des Oiſeaux, *liv.* iv. 17.

† "To aſcertain this circumſtance," ſays M. Baillon, "I employed "the ſame ſtratagem: in a field of green corn, and in the garden, I "beat the earth for a ſhort time, and I ſaw the worms coming out; "I preſſed down a ſtake, which I then turned in all directions to "ſhake the foil: this method, which is ſaid to be uſed by the cur-"lews, ſucceeds ſtill quicker; the worms crawled out in crowds, "even at the diſtance of a fathom from the ſtake."

 under

under ſide is white, the ground, which was darkened by their numbers, appears at once white. But this great ſociety, which theſe birds form on their arrival, diſſolves when the vernal warmth invites to love, and in two or three days they diſperſe. The ſignal is given by battles between the males; the females ſeem to avoid the contentions, and firſt abandon the flock, as if unconcerned in the quarrels: but, in fact, they draw off the combatants to form a ſweeter and more intimate union, which laſts three months.

The hatch is conducted in April; it conſiſts of three or four oblong eggs, of a dull green, much ſpotted with black: theſe are dropped in the marſhes, on the little heads or clods of earth raiſed above the ſurface of the plain; a precaution which ſeems neceſſary to guard againſt the accidental ſwelling of the water, but which, however, leaves the neſt expoſed. To make a ſite for it, they are contented with cropping, cloſe to the ſurface, a little round ſpace in the graſs, which ſoon withers about it, from the heat of incubation; and if we find the graſs freſh and verdant, we may infer that the eggs have not been covered. It is ſaid, that theſe eggs are good to eat, and in many provinces great quantities are gathered for market. But is it not an incroachment on the rights of nature, an invaſion on her property, to deſtroy thus the tender germs of ſpecies which we cannot multiply?

The

The eggs of domeftic poultry are in a manner our own creation, but thofe of independent birds belong only to the common mother of all.

The incubation of the Lapwing, as in moft other birds, lafts twenty days: the female fits affiduoufly; if any thing alarms it, and drives it from its neft, it runs a little way, cowering through the grafs, and does not rife till at a good diftance from its eggs, that it may not betray the fpot. The old hens, whofe nefts have been robbed, will not again breed expofed in the marfhes; they retire among the growing corn, and there in tranquillity make their fecond hatch: the young ones, lefs experienced, are not deterred by their lofs, and they rifk their neft a fecond, or even a third time in the fame place; but thefe after-layings never exceed one or two eggs.

The young Lapwings, two or three days after being hatched, run among the grafs and follow their parents: thefe from folicitude often betray the little family, and difcover the retreat, as they flutter backwards and forwards over the fowler's head with cries of inquietude, which are augmented as he approaches the fpot where the brood had fquatted on the firft alarm. When pufhed to extremity they betake themfelves to running, and it is difficult to catch them without the affiftance of a dog, for they are as alert as partridges. At this age they are covered with a blackifh

a blackiſh down, ſhaded under with long white hairs; but in July they drop this garb, and acquire their beautiful plumage.

The great aſſociation now begins to be renewed: all the Lapwings of the ſame marſh, young or old, aſſemble; thoſe of the adjacent marſhes join them, and in a ſhort time, a body of five or ſix hundred are collected. They hover in the air, ſaunter in the meadows, and, after rain, they diſperſe among the plowed fields.

Theſe birds are reckoned inconſtant, and indeed they ſeldom remain above twenty-four hours in the ſame tract: but this volatility is occaſioned by the ſcantineſs of food; if the worms of a certain haunt be conſumed in one day, the flock muſt remove on the following. In the month of October the Lapwings are very fat, and this is the time when they live in greateſt abundance; becauſe in this wet ſeaſon the worms ſwarm on the ſurface; but the cold winds which blow about the end of the month conſtrain them to retire into the earth, and thus oblige the Lapwings to paſs into another climate. This is the general cauſe of migration in the vermivorous birds. On the approach of winter, they advance towards the ſouth, where the rains are only begun, and, for a like reaſon, they return in the ſpring; the exceſſive heat and dryneſs of the ſummer in thoſe latitudes having the ſame effect as great cold in confining the worms in the

the ground*. And that the time of migration is the ſame throughout the whole of our hemiſphere, is evinced by this circumſtance, that at Kamtſchatka October is denominated *the month of Lapwings* †; which, as in our latitudes, is the time of their departure.

Belon ſays, that the Lapwing is *known over the whole earth*; and the ſpecies is indeed widely diſperſed. We have juſt mentioned their being found in the eaſtern extremity of Aſia; they are met with alſo in the interior parts of that vaſt region ‡, and they are ſeen in the whole of Europe. In the end of winter, thouſands of them appear in our provinces of Brie and Champagne §, and great numbers are caught. Nets

* M. Baillon, to whom we are indebted for the beſt details in this hiſtory of the Lapwing, confirms our idea with reſpect to the cauſe of the return of the Lapwing from ſouth to north, by an obſervation which he made himſelf in the Antilles. "The ground," ſays he, "is, during ſix months of the year, extremely hard and parched in "the Antilles; not a ſingle drop of rain falls in the whole of that "time; I have ſeen cracks in the valleys four inches broad, and ſeve-"ral feet deep; no worm can then live at the ſurface: accordingly, "in the dry ſeaſon, no vermivorous bird is obſerved in theſe iſlands; "but on the firſt days after the rains ſet in, they arrive in ſwarms, "and come, I ſuppoſe, from the low deluged lands on the eaſtern "ſhores of Florida, from the Bahamas, and a multitude of other "iſlands, lying north or north-weſt from the Antilles: all theſe wet "places are the cradle of the water-fowl of theſe iſlands, and per-"haps of a part of the great continent of America."

† *Pikis koatch*; *pikis* is the name of the bird. *Gmelin.*

‡ "The Lapwings are very numerous in Perſia." *Lettres Ediſiantes, trentieme Recueil*, p. 317.

§ "In this province, and particularly in the canton of Baſſigny, "they are hunted at night with flambeaux; the light wakes them, "and, it is ſaid, attracts them." *Note communicated by M. Petitjean.*

are ſpread in a meadow, and a few ſtakes and one or two live Lapwings ſet in the middle ſpace to entice the birds; or the fowler, concealed in his lodge, imitates their cry with a call made of fine bark; and the whole flock, thus betrayed, alight and are enſnared. Olina mentions the courſe of November as the time of the greateſt captures; and from his account it appears, that in Italy the Lapwings remain congregated the whole winter *.

The fleſh of the Lapwing is held in conſiderable eſtimation †; yet thoſe who have drawn the nice line of pious abſtinence have, by way of favour, admitted it into the diet of mortification. This bird has a very muſcular ſtomach, lined with an inadheſive membrane, covered by the liver, and containing, as uſual, a few ſmall pebbles; the inteſtinal tube is about two feet long: it has two *cæca* directed forwards, each more than two inches long; a gall-bladder adhering to the liver and the *duodenum*: the liver is large, and divided into two lobes ‡; the *œſophagus* about ſix inches long, dilated into a bag before its inſertion; the palate is rough with ſmall fleſhy points, which lie backwards; the tongue

* M. Hebert aſſures us, that a few remain in Brie till the depth of winter.

† It is much valued in ſome of the provinces: in Lorraine there is an old proverb, *Qui n'a pas mangé de Vanneau, ne ſait pas ce que gibier vaut* (He that has not eaten Lapwing, knows not what game is worth).

‡ Willughby.

is narrow, rounded at the tip, and ten lines in length. Willughby obſerves, that the ears are placed higher in the Lapwing than in other birds.

There is no diſtinction, in point of ſize, between the male and the female, but, in the colours of the plumage, ſome differences occur, though Aldrovandus ſays, that he did not perceive any. The tints of the female are in general more dilute, and the black parts mixed with gray: its creſt is alſo ſmaller than that of the male, whoſe head ſeems to be rather larger and rounder. In both the feathers are thick and well clothed with down, which is black near the body: the under ſide and the verge of the wings, near the ſhoulders, are white, and alſo the belly, the two outer feathers of the tail, and the firſt half of the reſt: there is a white point on each ſide of the bill, and a ſtreak of the ſame colour on the eye: all the reſt of the plumage is of a black ground, but enriched by fine reflections of a metallic luſtre, changing into green and gold-red, particularly on the head and the wings: the black on the throat and the forepart of the neck is ſpotted with white, but on the breaſt it forms alone a broad round ſpace, and, like the black of the wings, it is gloſſed with bronze green: the coverts of the tail are rufous:—but as the plumage frequently varies ſomewhat in different individuals, it will be unneceſſary to be more particular in the deſcrip-

 tion;

tion; I ſhall only obſerve, that the tuft is not inſerted in the front, but in the back of the head, which is more graceful; it conſiſts of five or ſix delicate threads, of a jet black, the two upper ones cover the reſt, and are much longer. The bill is black, pretty ſhort and ſmall, not exceeding twelve or thirteen lines, inflated near the point: the feet are tall and ſlender, and of a brown red, as well as the lower part of the legs, which is naked for the ſpace of ſeven or eight lines, the outer and middle toes are joined at their origin by a ſmall membrane; the hind one is very ſhort, and does not reach the ground: the tail does not extend beyond the wings when they are cloſed: the total length of the bird is eleven or twelve inches, and its bulk is nearly that of a common pigeon.

Lapwings may be kept in the domeſtic ſtate; "they ſhould be fed," ſays Olina, "with ox-heart minced in ſhreds." Sometimes they are let into the gardens, where they are uſeful in dedeſtroying inſects *: they remain contented, and never ſeek to eſcape; but, as Klein remarks, the facility in the domeſtication of this bird, proceeds rather from its ſtupidity than its ſenſibility; and that obſerver aſſerts, that the demeanour and

* "I have often had Lapwings in my garden; I have ſtudied them "much; they were reſtleſs, like quails, at the time of migration, "and ſcreamed immoderately for ſeveral days. I accuſtomed them "to live on bread and raw fleſh in winter; I kept them in a cellar, "but they grew very lean." *Note communicated by M. Baillon.*

phyſiognomy

physiognomy of both the Lapwings and plovers shew that their instincts are obtuse.

Gesner speaks of white lapwings, and of brown spotted lapwings without the tuft: but of the first his account is not sufficiently precise for us to judge whether they are not merely accidental varieties; and with regard to the second, he seems to mistake plovers for Lapwings, for he elsewhere confesses that he was little acquainted with the plover, which is extremely rare in Switzerland, while Lapwings are very frequent; and there is even a species called the Swiss Lapwing.

[A] Specific character of the Lapwing, *Tringa-Vanellus*: "Its "feet are red, its crest hanging, its breast black." It remains in Great Britain the whole year, though it often shifts its haunts: its eggs are sold as great delicacies, by the London poulterers, at three shillings a dozen.

The SWISS LAPWING.

SECOND SPECIES.

Tringa Helvetica. Linn. and Gmel.
Vanellus Helveticus. Briſſ.
Charadrius Hypomelus. Pallas.
The Swiſs Sandpiper. Penn. and Lath.

THIS is nearly as large as the common lapwing; all the upper ſide of the body is variegated tranſverſely with waves of white and brown; the fore-part of the body is black or blackiſh; the belly is white; the great quills of the wings are black, and the tail is croſſed with bars like the back; it might therefore derive its denomination of Swiſs Lapwing from its particoloured garb; which is perhaps as plauſible a ſuppoſition as that it received this name from its greater frequency in Switzerland *.

Briſſon makes the *ginochiella* of Aldrovandus a third ſpecies, under the appellation of the *greater lapwing* †, which little belongs to that bird,

* There is a very cogent reaſon for doubting whether this bird be found at all in that country, ſince ſo intelligent an obſerver as Geſner makes no mention of it.

† Tringa Bononienſis. *Linn.* and *Gmel.*

Specific character: "Its feet ochry, its head and neck bay, its "body black above and white below; its throat and breaſt marked "with ferruginous ſpots."

ſince

ſince Aldrovandus's figure, which he ſays is the natural ſize, repreſents it as ſmaller than a common lapwing. But it is difficult to decide on the reality of a ſpecies from the ſight of an imperfect figure; particularly as, unleſs the bill and feet be badly delineated, it cannot be a lapwing; we might rather claſs it with the *great plover*, or *land curlew*, of which we ſhall ſpeak at the cloſe of the article of the plovers, if the difference of its ſize had not oppoſed this arrangement. Aldrovandus, in the ſhort account which he ſubjoins to his figure, ſays, that its bill has a ſharp point, a property which belongs equally to the plover and to the lapwing: ſo that we ſhall content ourſelves with juſt mentioning this bird, without venturing to decide its ſpecies.

[A] Specific character of the *Tringa Helvetica*: "Its bill and "feet are black, its under ſide black, its vent white, its tail-quills "white barred with black." This Lapwing is known alſo in the northern parts of the American continent, appearing in the ſpring, and retiring in September: it there lives on berries, inſects, and worms.

The ARMED LAPWING of SENEGAL.

THIRD SPECIES.

Parra Senegalla. Linn. and Gmel.
Vanellus Senegalensis Armatus. Briss.
Tringa Senegalla. Lath. Ind.
The Senegal Sandpiper. Lath. Syn.

THIS Senegal Lapwing is as large as the European; but its feet are very tall, and the naked part of its leg measures twenty lines, and both that part and the feet are greenish; the bill is sixteen lines long, and bears near the front a narrow membrane, very thin and yellow, hanging down tapered to a point on each side; the fore part of the body is of the same colour, but deeper; the great quills of the wing black; those next the body of a dirty white; the tail is white in its first half, then black, and at last terminating in white. This bird is armed at the fold of the wing with a little horny spur, two lines in length, and ending in a short point.

We may recognize this species in a passage of Adanson's Voyage to Senegal, from a habit which belongs, as we have remarked, to the family

family of the lapwings; that when a perſon appears in their haunts, they flutter about him, and follow his ſteps with importunate clamours. Theſe armed lapwings are termed by the French ſettlers, *criers (criards)* and by the negroes, *uet-uet*. "As ſoon as they perceive a man," ſays Adanſon, "they ſcream with all their force, "and flutter round him, as if to give intima-"tion to the other birds, which, when they "hear the vociferation, make their eſcape by "flight: they ſpoil, therefore, the fowler's "ſport." Our lapwings are peaceful; and never quarrel with other birds; but nature, in beſtowing on thoſe of Senegal a ſpur in the wing, ſeems to have accoutred them for battle; and they are accordingly ſaid to employ it as an offenſive weapon.

The ARMED LAPWING of the INDIES.

FOURTH SPECIES.

Parra Goenſis. Gmel.
Tringa Goenſis. Lath. Ind.
The Goa Sandpiper. Lath. Syn.

THIS ſpecies was ſent us from Goa, and is not yet known to the naturaliſts: it is as large as the European lapwing, but taller and more ſlender; it has a little ſpur in the fold of each wing, and its plumage conſiſts of the uſual colours: the great quills of the wing are black; the tail partly white, partly black, and rufous at the extremity; the ſhoulders are covered with a purple tinge; the under ſide of the body is white; the throat and the fore-part of the neck are black; the top of the head, and the upper ſurface of the neck, are alſo black, with a white line on the ſides of the neck; the back is brown; the eye is environed by a portion of that exuberant ſkin which appears more or leſs in all the armed lapwings and plovers, as if theſe two excreſcences, the ſpur and the membranous caſque, had ſome common, though concealed, cauſe.

The ARMED LAPWING of LOUISIANA.

FIFTH SPECIES.

Parra Ludoviciana. Gmel.
Vanellus Ludovicianus Armatus, Briſſ.
Tringa Ludoviciana. Lath. Ind.
The Armed Sandpiper. Penn.
The Louiſiane Sandpiper. Lath.

THIS is a little ſmaller than the preceding, but its legs and feet are proportionally as long, and its ſpur is ſtronger, and four lines in length: its head is wrapped on each ſide with a double yellow band, placed laterally, and which, encircling the eye, is faſhioned behind into a ſmall furrow, and ſtretches before, on the root of the bill, in two long ſhreds: the top of the head is black; the great quills of the wings, too, are black; the tail the ſame, with a white point: the reſt of the plumage is of a gray ground and tinged with ruſty brown, or reddiſh on the back, with light reddiſh or fleſh-colour on the throat and the fore-ſide of the neck; the bill and feet are of a greeniſh yellow.—We reckon the eighth ſpecies of Briſſon, denominated *the armed*

armed lapwing of St. Domingo *, as a variety of the preſent: the proportions are nearly the ſame, and the differences ſeem to reſult from age or ſex.

* Parra Dominica. *Gmel.*

Thus deſcribed by Briſſon: "It is dilute fulvous, below inclining "to roſe-colour; its wing-quills dilute fulvous, the lateral ones in- "teriorly verging on roſe-colour; a yellow membrane on either ſide "between the bill and the eye, drawn above the eye, and hanging "downwards, its wings armed."

The ARMED LAPWING of CAYENNE.

SIXTH SPECIES.

Parra Cayanenſis. Gmel.
Tringa Cayanenſis. Lath. Ind.
The Cayenne Sandpiper. Lath. Syn.

THIS is at leaſt as large as the common lapwing, and is taller: it is alſo armed with a ſpur on the ſhoulder. In its colours it reſembles entirely the ordinary ſpecies; its ſhoulder is covered with a mark of bluiſh gray; a mixture of that colour, with green and purple tints, is ſpread on the back; the neck is gray, but a broad black ſpace occupies the breaſt; the front and the throat are black; the tail is partly black, partly white, as in the European lapwing; and, to complete the reſemblance, this Cayenne Lapwing has on the back of its head a ſmall tuft of five or ſix pretty ſhort threads.

It appears, that a ſpecies of Armed Lapwing is found alſo in Chili *; and if the account given by Frezier be not exaggerated, it muſt

* Parra Chilenſis. *Gmel.*

be

be more ſtrongly armed than the reſt, ſince its ſpurs are an inch long: it is alſo clamorous, like that of Senegal. "As ſoon as theſe birds "ſee a man," ſays Frezier, they hover round "him, and ſcream, as if to warn the other "birds, which, at this ſignal, fly away on all "ſides."

The LAPWING-PLOVER.

Tringa Squatarola. Linn. and Gmel.
Vanellus Grifeus. Briff.
Pluvialis Cinerea. Aldrov. Johnft. Ray and Charleton.
Pardalus. Gefner.
Pluvialis Cinerea Flavefcens. Sibb.
Gavia. Klein.
The Gray Plover. Alb. and Brown.
The Gray Sandpiper *. Penn. and Lath.

THIS bird is by Belon termed the *gray-plover*; and in fact it refembles the plover as much as the lapwing, perhaps more: it has indeed, like the latter, the fmall hind toe, which is wanting in the plover, a difference which has induced naturalifts to feparate thefe birds. But it muft be obferved that this toe is fmaller than that of the lapwing, and hardly apparent; and that alfo it has fcarce any of the colours of the lapwing. It might be regarded as a lapwing, becaufe it has a fourth toe; or as a plover, becaufe it has no tuft, and fince its habits and its garb are thofe of the plovers.

Klein will not even admit that this fmall difference in the toes is a general character, but juftly regards it as an anomaly; and he infifts

* In Bornholm it is called *Floyte-Tyten, Dolken.*—*T.*

that the lapwings and plovers have ſo many common characters as to conſtitute only one great family. Accordingly, ſome naturaliſts have termed it a lapwing, others a plover: and, to compromiſe the matter, and retain the analogies, we have denominated it the *Lapwing-Plover*. Fowlers call it the *ſea-plover*, which is an improper appellation, ſince it conſorts with the common plovers; and Belon takes it to be the leader of their flocks, becauſe it has a louder and ſtronger voice than the reſt. It is ſomewhat larger than the golden plover; its bill is proportionally longer and ſtouter: all its plumage is light aſh-gray, and almoſt white under the body, mixed with browniſh ſpots on the upper ſide of the body and on the ſides; the quills of the wing are blackiſh; the tail is ſhort, and does not project beyond the wing.

Aldrovandus conjectures, with a good deal of probability, that this bird is mentioned by Ariſtotle under the name of *pardalis*. But we muſt obſerve that the philoſopher does not ſeem to ſpeak of it as a bird with which he was himſelf acquainted; for the following are his expreſſions: "The *pardalis* is ſaid to be in a great "meaſure a gregarious bird, and never found "alone; its plumage is entirely cinereous; it "is, in point of ſize, next the *molliceps*; its pi-"nions and feet are vigorous; its voice not "deep, but frequent *." Add to this, that the

* Hiſt. Animal, *lib.* ix. 23.

name

name *pardalis* ſignifies a mottled plumage. All the other properties belong equally to the family of the plovers or of the lapwing.

Willughby aſſures us, that this bird is ſeen frequently in the territories of the Venetian ſtate, where it is called *ſquatarola*. Marſigli reckons it an inhabitant of the banks of the Danube. Schwenckfeld inſerts it in the number of Sileſian birds; Rzacynſki, in thoſe of Poland; and Sibbald, in thoſe of Scotland. Hence this ſpecies, like all the lapwings, is extremely diffuſed. Does Linnæus allude to any peculiarity of its hiſtory, when in one of his editions he denominates it *tringa auguſti menſis* *? And does it really appear in Sweden in the month of Auguſt?—The hind toe of this bird is ſo ſmall, and ſo little apparent, that with Briſſon we ſhall not heſitate to refer to it the *brown lapwing* of Schwenckfeld, though he ſays expreſsly that it wants the hind toe.

To this ſpecies alſo we ſhall refer, as being cloſely related, the *variegated lapwing* † of Briſſon. Aldrovandus gives the figure without any deſcription; but its appellation ſhews that he knew the great reſemblance between the two birds: all their proportions are nearly the ſame; the ground of their plumage differs only

* *Syſt. Nat.* ed. 10. Gen. 60. Sp. 11.

† Tringa-Squatarola, *var. Gmel.*
Tringa Varia. *Linn.*

in a few tints, it being more ſpotted in this variegated Lapwing. Both of them, according to Briſſon, haunt the ſea-ſhore; but it is certain, from the authorities which we have cited, that theſe birds occur alſo at a diſtance from the coaſt and in inland countries.

[A] Specific character of the Gray Sandpiper: "Its bill is "black, its feet greeniſh; its body gray, and white below." In England theſe birds are ſeen during winter in ſmall and unfrequent flocks. They are obſerved alſo in America, flying over the meadows in the back parts of Carolina. They are very common in Siberia. Their fleſh is eſteemed very delicate.

The PLOVERS.

Les Pluviers. *Buff.*

THE ſocial inſtinct is not beſtowed on all the ſpecies of birds; but, in thoſe which it cements, the union is firmer and more unſhaken than in other animals; not only their flocks are more numerous and more conſtantly embodied: the whole community ſeems to have but one will; and the ſame appetites, projects, and pleaſures actuate each individual. Birds are more prolific than the quadrupeds, they live in greater plenty, and their motions are performed with greater eaſe and celerity. The compactneſs of their ſquadrons, and the power of their voice, enable them to transfuſe their ſentiments and intentions, and to act by mutual concert. And the ſagacity exerciſed in interpreting their ſignals begets among them affection, truſt, and the gentle habits of peace and concord. The ſocieties of quadrupeds, whether formed voluntarily in the wilds of nature, or contracted and upheld by the influence of man, cannot be compared with the congregations of the birds. Pigeons grow fond of their common dwelling;

and their attachment is the ſtronger the more numerous their flock: quails aſſemble, and concert their migration: the gallinaceous tribes poſſeſs, even in the ſavage ſtate, thoſe ſocial habits which domeſtication only nouriſhes and unfolds; laſtly, all the birds which ſcatter in the woods or diſperſe in the fields, gather together in the autumn; and after chearing the bright days of that late ſeaſon with gay ſport, they depart embodied, in queſt of milder winters and happier climates. All theſe combinations and movements of the feathered race are conducted independently of the guidance or controul of man, though performed under his eye. But his interference in the aſſociations of quadrupeds diſunites and diſperſes them. The marmot, formed by nature for ſociety, now lives ſolitary and exiled on the ſummits of mountains; the beaver, diſpoſed ſtill more to friendſhip, and almoſt civilized, has been driven into the deepeſt wilds. Man has deſtroyed or prevented all union among animals: that of the horſe has been extinguiſhed, and the whole ſpecies ſubjected to the rein*: even the elephant has been reduced

* The horſes which have grown wild on the plains of Buenos-Ayres go in large flocks, run together, feed together, and give all the marks of mutual attachment and intelligence, and of delighting in ſociety. The ſame is the caſe with the wild dogs in Canada and other parts of North America. We can ſcarce doubt but that the other domeſtic ſpecies, that of the camel, ſo long reduced to ſubjection; that of the ox and of the ſheep, which man has

reduced to conſtraint, notwithſtanding his vaſt ſtrength, and his conſtant ſterility in the domeſtic ſtate. The birds alone have eſcaped the domination of the tyrant; and their ſociety is as free as the element which they inhabit. His attacks can deſtroy only the life of the individual; the ſpecies may ſuffer a diminution of its numbers, but its inſtincts, habits, and œconomy remain untouched. There are many ſpecies even which are known to us only from their ſocial propenſity, and are never ſeen but at the time of their general muſter, when vaſt multitudes are aſſembled. Such in general are the companies of many water-fowls, and in particular that of the Plovers.

They appear in numerous bodies in the provinces of France during the autumnal rains, and from this circumſtance they derive their name *. They frequent, like the lapwings, the wet bottoms and ſlimy grounds, where they ſearch for worms and inſects: they go into the water in the morning to waſh their bill and feet, which are clotted with mud by their employment; a habit which is common alſo to the woodcocks, the lapwings, the curlews, and many other

has diſunited by degrading them with ſervitude; were alſo naturally ſocial, and diſplayed in the wild ſtate, ennobled by freedom, thoſe tender tokens of regard and affection with which we behold them mutually ſoothe their ſlavery.

* From *pluvia*, rain. Geſner ſuppoſes it to come from *pulvis*, duſt; which is much leſs probable, there being many other birds beſides Plovers that welter in duſt.

other birds which feed on worms. They ſtrike the ground with their feet to elicit theſe, and often they extract them from their retreat *. Though the Plovers are uſually very fat, their inteſtines are found to be ſo empty, that it has been ſuppoſed that they could live on air; but it is probable that the ſoft ſubſtance of the worms turns wholly into nouriſhment, and leaves little excrement. They ſeem however capable of ſupporting a long abſtinence: Schwenckfeld ſays, that he kept one fourteen days, which during the whole time only drank ſome water, and ſwallowed a few grains of ſand.

Seldom do the Plovers remain more than twenty-four hours in the ſame place: as they are very numerous, they quickly conſume the proviſions which it affords, and are then obliged to remove to another paſture. The firſt ſnows compel them to leave our climates, and ſeek milder regions: however, a conſiderable number of them remain in our maritime provinces † till the hard froſts. They return in ſpring ‡, and always in flocks; a ſingle Plover is never

* *Note communicated by M. Baillon, of Montreuil-ſur-mer.*

† In Picardy, according to M. Baillon, many of theſe birds continue in the neighbourhood of Montreuil-ſur-mer, till the intenſe froſts ſet in.

‡ The Chevalier Deſmazy informs us, that they are ſeen to paſs Malta regularly twice a year, in ſpring and in autumn, with a multitude of other birds which croſs the Mediterranean, and make that iſland their place of ſtation and repoſe.

ſeen, ſays Longolius. And, according to Belon, their ſmalleſt companies amount at leaſt to fifty. When on the ground they never reſt, but are inceſſantly engaged in the ſearch of food; they are almoſt perpetually in motion: ſeveral keep watch while the reſt of the flock are feeding, and on the leaſt ſymptom of danger they utter a ſhrill ſcream, which is the ſignal of flight. On wing, they follow the wind, and maintain a pretty ſingular arrangement; and thus advancing in front, they form in the air tranſverſe zones, very narrow and exceedingly long: ſometimes there are ſeveral of theſe zones parallel, of ſmall depth, but wide extended in croſs lines.

When on the ground theſe birds run much, and very ſwiftly; they continue in a flock the whole day, and only ſeparate to paſs the night: they diſperſe in the evening to a certain haunt, where each repoſes apart; but at day-break, the one firſt awake or the moſt watchful, which fowlers term the *caller*, though perhaps it is the ſentinel, ſounds the cry *hui*, *hieu*, *huit*, and in an inſtant they obey the ſummons and collect together. This is the time choſen for catching them: a clap-net is ſtretched before dawn facing the place where they ſleep; a number of fowlers encircle it, and as ſoon as the call is heard, they throw themſelves flat on the ground till the birds gather; then they riſe up, ſhout, and throw their ſticks into the air; ſo that the

Plovers

Plovers are frightened, and hurrying away with a low flight they ſtrike againſt the net, which drops upon them, and often the whole flock is taken. This plan is always attended with great ſucceſs; but a ſingle bird-catcher can in a ſimpler way enſnare conſiderable numbers: he conceals himſelf behind his net, and attracts the birds by means of a call of bark. They are caught in abundance in the plains of Beauce and of Champagne. Though very common in Italy, they are eſteemed excellent game: Belon ſays, that in his time a Plover was ſold often as dear as a hare; he adds, that they preferred the young ones, which he calls *guillemots*.

The chaſe of the Plovers, and their mode of living in that ſeaſon, are almoſt the whole we know of their natural hiſtory. Tranſient gueſts rather than inhabitants of our fields, they diſappear on the ſnow's falling; repaſs without halting in the ſpring, and leave us when the other birds arrive. It would ſeem, that the gentle warmth of that ſeaſon, which awakens the dormant faculties of the other birds, makes a contrary impreſſion on the Plovers: they proceed to the more northern countries to breed, and rear their young, for during the whole ſummer we never ſee them. Then they inhabit Lapland, and other parts of the north of Europe *, and

* See Collection Academique, *partie etrangere*, tome xi. *Academie de Stockholm*, p. 60.

probably

probably thoſe of Aſia. Their progreſs is the ſame in America; ſince they are common to both continents, and are obſerved in the ſpring at Hudſon's Bay advancing farther north *. After arriving in flocks in thoſe arctic tracts, they ſeparate into pairs; and the more intimate union of love breaks, or rather ſuſpends for a time, the general ſociety of friendſhip. Hence Klein, an inhabitant of Dantzick, remarks, that the Plovers live ſolitary in low grounds and meadows.

The ſpecies which in our climates appears as numerous at leaſt as that of the lapwing, is leſs diffuſed. According to Aldrovandus, fewer Plovers are caught in Italy than lapwings, and they are not found in Switzerland and other countries, where the lapwings are frequent. But perhaps the Plover, advancing farther to the north than the lapwing, gains as much territory as it relinquiſhes in the ſouth. It ſeems alſo to have occupied a ſpacious tract in the new world, which has afforded an ample range to many ſpecies of birds, becauſe there the temperature is more uniform throughout, and the climates more obſcurely diſcriminated.

The Golden Plover may be regarded as the repreſentative of the whole family of Plovers; and what we have ſaid of their habits and œconomy refer to it: but ſpecies are included, which we proceed to enumerate and deſcribe.

* Hiſt. Gen. des Voy. *tom.* xv. *p.* 267.

The GOLDEN PLOVER.

LE PLUVIER DORE'. *Buff.*

FIRST SPECIES.

Charadrius-Pluvialis. Linn. and Gmel.
Gavia Viridis. Klein.
Pluvialis Viridis. Ray. Will. and Sibbald.
Pluvialis Aurea. Briſſ.
Pivier. Aldrov.
Pluvialis Flaveſcens. Johnſt.
Pluvialis Flavo-Vireſcens. Charleton.
* *The Golden, or Green Plover.* Penn. Lath. &c.

THE Golden Plover is as large as the turtle; its length from the bill to the tail, and alſo from the bill to the nails, is about ten inches: all the upper ſide of the body is daſhed with yellow ſtreaks, intermixed with light-gray, on a blackiſh brown ground; and theſe yellow ſtreaks are conſpicuous in the dark field, and give the plumage a golden luſtre. The ſame colours, only more dilute, are intermingled on the throat and breaſt; the belly is white, the bill is black,

* In German *Pluvier, Pulroſz, See-taube* (ſea-pigeon), *Grunerkiwit* (green pewit): in Italian *Pivrero, Piviero Verde:* in Poliſh *Ptak-deſſczowy:* in Swediſh *Aokerhoens:* in Norwegian *Akerloe:* in Lapponic *Hutti:* in Catalonia it is called *Dorada*; and in Sileſia *Brach-vogel.*

as

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THE GOLDEN PLOVER.

as in all the plovers, ſhort, rounded, and ſwelled at the tip; the feet are blackiſh, and the outer toe is connected as far as the firſt joint, by a ſmall membrane, to the mid-toe; the feet have only three toes, and there is no veſtige of a hind-toe or heel; which property, joined to the inflation of its bill, is regarded by ornithologiſts as the diſcriminating character of the plovers. In all of them, a part above the knee is bare; the neck ſhort; the eyes large; the head rather too bulky in proportion to the body: qualities which belong alſo to all the *ſcolopacious* birds *, which ſome naturaliſts have ranged together under the denomination of *pardales* †; though there are many ſpecies, particularly among the plovers, whoſe plumage is not mottled like a panther or tiger.

There is little difference between the plumage of the male and that of the female ‡: however, the varieties, whether individual or accidental, are very frequent; ſo that in the ſame ſeaſon, out of five-and-twenty or thirty Golden Plovers, we ſhall hardly find two exactly alike. They have more or leſs of yellow, and ſometimes ſo little of it as to appear quite gray §. A few have black ſpots on the breaſt, &c.

* As the woodcocks, the ſnipes, the godwits, &c.

† Klein, Schwenckfeld.

‡ Aldrovandus, Belon.

§ M. Baillon, who has obſerved theſe birds in Picardy, aſſures us that their early plumage is gray; that at their firſt moult, in Auguſt

&c. Theſe birds, according to M. Baillon, arrive on the coaſts of Picardy about the end of September or the beginning of October; but in our more ſouthern provinces they do not appear until November, or even later, and they retire in February and March *. In ſummer, they are ſeen in the north of Sweden, in Dalecarlia, and in the iſle of Oëland †, in Norway, Iceland, and Lapland ‡. From theſe arctic regions they appear to have migrated into the new world, where they ſeem to be more widely diffuſed than in the old; for a Golden Plover, differing only in ſome ſhades from the European, is found in Jamaica §, in Martinico, in St. Domingo ||, and in Cayenne. In the ſouthern parts of Ame-

Auguſt and September, they get ſome feathers, which have a yellow caſt, or which are ſpotted with that colour; but that it is not till after ſome years that they acquire their fine golden tint. He adds, that the females are hatched entirely gray, and long retain that colour; that it is only when they grow old that they aſſume a little yellow; and that it is very rare to ſee them have their plumage ſo uniform and beautiful as that of the males. Thus we need not wonder at the variety of colours remarked in this ſpecies of birds, ſince they reſult from the difference of age and of ſex. *Note communicated by M. Baillon.*

* M. Lottinger has obſerved the ſame of their paſſage in Lorraine.

† *Fauna Suecica.*

‡ Brunnich.

§ Sloane.

|| Charadrius-Pluvialis, *var.* 2. *Gmel.*

Thus deſcribed by Briſſon: "Above, blackiſh, variegated with "yellowiſh ſpots; below white; the lower part of its neck and its "breaſt dilute gray; the edges of its quills yellowiſh; its tail-quills "brown, ſpotted at the edges with yellowiſh white."

rica

rica these birds inhabit the savannas, and visit the patches of sugar-cane which have been set on fire. Their flocks are numerous, and can hardly be approached: they are migratory, and are seen in Cayenne only during the rainy season.

M. Brisson establishes a second species, which he denominates *the lesser Golden Plover* *, and as his authority, cites Gesner, who never saw the Plover himself. Schwenckfeld and Rzacynski also mention this small species, and probably still from Gesner; for the former, though he applies to it the epithet 'little,' says, at the same time, that it is equal in bulk to the turtle; and the latter adds no particulars that imply that he observed it distinctly himself. We shall therefore consider this little Golden Plover as only an individual variety.

* Charadrius-Pluvialis. *var.* I. *Gmel.*
Thus described by Brisson: "Above blackish, variegated with "yellowish spots; below white; the tail-quills blackish, spotted at "the edges with yellowish white."

[A] Specific character of the Golden Plover, *Charadrius-Pluvialis*: "Its body is spotted with black and green; below "whitish; its feet cinereous." It lays four eggs, about two inches long, sharper than those of the lapwing, of a pale olive, variegated with blackish spots. It is often found in the winter season on our moors and heaths in small flocks.

The ALWARGRIM PLOVER.

LE PLUVIER DORE´ `A GORGE NOIRE.

Buff. *

SECOND SPECIES.

Charadrius Apricarius. Linn. and Gmel.
Pluvialis Aurea Freti-Hudſonis. Briſſ.
The Hawk's-eye ſpotted Plover. Edw. and Bancr.

THIS ſpecies is often found with the preceding in the northern countries, where they live and propagate, but without intermixture. Edwards received this bird from Hudſon's Bay, and Linnæus met with it in Sweden, in Smoland, and in the waſte plains of Oëland †: it is the *Pluvialis minor Nigro-flavus* ‡ of Rudbeck. Its front is white, and a ſmall white fillet, paſſing over the eyes and the ſides of the neck, deſcends before, and encircles a black mark which covers the throat: the reſt of the under ſurface of the body is black: all the mantle is duſky brown and blackiſh, and ſpeckled pleaſantly with a vivid yellow, which is diſtributed by indented ſpots on the margin of

* *i. e.* Black-throated Golden Plover.
† In Smoland it is called *Myrpitta,* and in Oëland *Alwargrim.*
‡ *i. e.* The black-yellow leſſer plover.

each

each feather. This Plover is as large as the preceding. We know not why the English settlers at Hudson's Bay give it the epithet of *Hawk's-eye*; whether by antiphrasis they allude to its weak eyes, or really signify that its sight is superior to that of other birds of its kind.

[A] Specific character of the Alwargrim Plover, *Charadrius Apricarius*: "Its throat and belly are black; its body dotted with "brown, white, and yellow; its feet cinereous." It appears in Greenland in the spring, and lives on worms and heath-berries. In North America it breeds, and spends the summer months in the northern states. Its brilliancy has procured it the name of *Hawk's-eye* in Hudson's Bay. Its flesh is reckoned delicious.

The DOTTEREL.

LE GUIGNARD. *Buff.*

THIRD SPECIES.

Charadrius-Morinellus. Linn. and Gmel.
Pluvialis Minor, ſive Morinellus. Briſſ.
Morinellus. Sibb. Charl. Will. &c.
Morinellus Anglorum. Geſner.

THIS bird is by ſome called the *little plover.* It is indeed ſmaller than the golden plover, not exceeding eight inches and a half in length: the ground of its upper ſurface is brown-gray with a green gloſs; every feather of the back, and alſo the middle ones of the bill, are bordered with a rufous ſtreak; the upper part of the head is blackiſh brown; the ſides and the face are ſpotted with gray and white; fore part of the neck and the breaſt are undated gray, rounded into a mark, under which, and near a black ſtreak, there is a white zone, which is the diſtinguiſhing character of the male: the ſtomach is rufous; the belly black; and the abdomen white.

The Dotterel is well known for the excellence of its fleſh, which is ſtill more delicate and juicy than that of the golden plover. The ſpecies

cies ſeems to be more diſperſed in the north than in our climates; and, beginning with England, it extends to Sweden and Lapland *. This bird has two annual flittings, in April and in Auguſt; in which it removes from the marſhes to the mountains, attracted by the black beetles, which are its chief ſubſiſtence, together with worms and ſmall land cockles, which are found in its ſtomach †. Willughby deſcribes the method of catching them practiſed in the county of Norfolk, where they are numerous: five or ſix ſportſmen ſet out together, and when they diſcover the birds, they ſtretch a net at ſome diſtance beyond them; then they advance ſoftly, throwing ſtones or bits of wood, and the indolent birds, thus rouſed from their ſleep, ſtretch out one wing or one foot, and can ſcarce ſtir: the fowlers believe that they mimic whatever they ſee, and therefore endeavour to amuſe them by extending their arm or their leg, and by this manœuvre, apparently idle ‡, to draw off their attention: but the Dotterels approach ſlowly

* In the ſixth edition of the *Syſtema Naturæ*, it is denominated *Charadrius Lapponicus*.

† Letter of Dr. Liſter to Mr. Ray. *Philoſophical Tranſactions*, Nº 175. Art. 3.

‡ An author, in Geſner, goes ſo far as to ſay, that this bird, attentive to the motions of the fowler, and delighted as it were, imitates all his geſtures, and forgets its own preſervation, inſomuch as to ſuffer him to approach and cover it with the net which he holds in his hand. See Aldrovandus, tom. iii. p. 540.

and with a ſluggiſh pace to the net, which drops and covers the ſtupid troop.

This character of ſluggiſhneſs and ſtupidity has given occaſion to the Engliſh name *Dotterel*, and alſo to the Latin appellation *Morinellus* *. Klein ſays, that its head is rounder than that of any of the plovers, which he reckons a mark of their dullneſs, from the analogy to the round heads of the breed called the *fooliſh pigeons*. Willughby thought he could perceive, that the females were rather larger than the males, without any other exterior difference.

With regard to the ſecond ſpecies, which Briſſon reckons, of the Dotterel, under the name of the *Engliſh Dotterel*, though both birds inhabit England; we ſhall conſider it as merely a variety. Albin repreſents it too ſmall in his figure, ſince in his deſcription he aſſigns greater weight and meaſures than to the common Dotterel: indeed the chief difference conſiſts in this, that it wants the croſs bar below the breaſt, and that the whole of that part, with the ſtomach and the fore ſide of the neck, are light-gray waſhed with yellowiſh. It appears to me therefore unneceſſary to multiply ſpecies on ſuch ſlight foundations.

* *Dotterel* derived from the verb *to dote*. *Morinellus* formed from *Morio*, a fool or jeſter.

[A] Specific character of the Dotterel, *Charadrius-Morinellus*: "Its breaſt ferruginous; a white linear bar on its eye-brows and "breaſt; its feet black." "Theſe birds," ſays Mr. Pennant, "are "found

"found in Cambridgeshire, Lincolnshire, and Derbyshire. On "Lincoln-heath, and on the moors of Derbyshire, they are migra- "tory, appearing there in small flocks of eight or ten only in the "latter end of April, and stay there all May and part of June, dur- "ing which time they are very fat, and much esteemed for their "delicate flavour. In the months of April and September they "are taken in Wiltshire and Berkshire downs.—At present, sportf- "men watch the arrival of the Dotterels, and shoot them; the "other method (that described in the text) having been long dis- "used."

The RING PLOVER.

LE PLUVIER À COLLIER. *Buff.* *

FOURTH SPECIES.

Charadrius, seu Hiaticula †. Ald. Johnst. Sibb.

WE shall divide this species into two branches; the first is as large as a red-wing ‡, the second nearly equal to a lark §. And the latter must be understood to represent the Ring

* *i. e.* the Collared Plover.

† In Polish *Zoltaczek*: in Swedish *Strand-pipare, Grylle, Trulls*: in Lapponic *Pago*: at Bornholm *Præste-Krave, Sand-Vrifter*: in Brasilian *Matuitui*.

‡ *Charadrius Alexandrinus.* Linn. and Gmel.
Charadrius Ægyptius. Linn.
Pluvialis Torquata. Briss.
Gavia Littoralis. Klein.
The Alexandrine Plover. Lath.

Specific character: "It is brown; its front, the collar on its "back, and its belly, white; its lateral tail-quills on both sides "bright white; its feet black."

§ *Charadrius-Hiaticula.* Linn. and Gmel.
Pluvialis Torquata Minor. Briss.
The Sea Lark. Alb. Will. and Sloane.
The Ringed Plover. Penn. and Lath.

Specific character: "Its breast brown, its front blackish with a "white ring, its top brown, its feet yellow."

Plover,

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THE RINGED PLOVER.

Plover, as it is more diffufed and better known than the former, which is perhaps only a variety.

Their head is round, their bill very fhort, and thick feathered at the root; the firft half of the bill is white or yellow, and the tip is black; the front is white; the crown of the head has a black band, and a gray cap covers it; this cap is edged with a black fillet, which rifes on the bill and paffes under the eyes; the collar is white; the mantle is brown gray; the quills of the wing are black; the under fide of the body is a fine white, and alfo the front and the collar.

Such is in general the plumage of the Ring Plover; but to defcribe all the diverfities in the diftribution and intenfity of the colours were endlefs. Yet notwithftanding thefe local or individual differences, the bird is the fame in almoft all climates. It is brought from the Cape of Good Hope, from the Philippines *, from Louifiana, and from Cayenne †. Captain Cook found it in the ftraits of Magellan ‡, and Ellis, at Hudfon's Bay §. It is the fame with what Marcgrave calls the *matuitui* of Brazil. Willughby makes that remark, and expreffes his

* Sonnerat. *Voyage à la Nouvelle Guinée*, p. 83.

† At Cayenne it is called *collier*; and the Spaniards of St. Domingo, feeing it robed in black and white like their monks, termed it *frailecitos*; the Indians give it the name *thegle, thegle,* from its cry. *Feuillée.*

‡ At Famine Bay.

§ Near Nelfon River.

furprize

ſurprize that there ſhould be birds common to South America and to Europe: a fact extraordinary and inexplicable, except on the principle which we eſtabliſh in treating of the water fowls; that the element which they inhabit is in all latitudes nearly of an equal temperature, and every where yields the ſame ſubſiſtence. We ſhall therefore regard the Ring Plover as one of thoſe ſpecies which are ſpread over the whole globe, and derive the varieties which occur in the plumage from the influence of climate *.

The Ring Plovers inhabit the verge of waters; they are obſerved on the ſea-ſhore following the tide. They run very nimbly in the ſtrands, at times taking ſhort flights, and always ſcreaming. In England, their neſts are found on the rocks by the coaſt: there they are very common, as in moſt of the northern countries; in Pruſſia †, Sweden ‡, and ſtill more in Lapland during ſummer. A few of theſe birds are found alſo on the rivers, and in ſome of the provinces of France: they are called *gravieres* (channel-birds) and in other places

* We reckon the *Greateſt Snipe* of Sloane and Ray one of the varieties. It is the *Pluvialis Jamaicenſis Torquata* of Briſſon, and the *Charadrius Jamaicenſis* of Gmelin, who thus characteriſes it: "Above brown, below white; its breaſt black and white; its tail "whitiſh, variegated with rufous and blackiſh; its collar and its "feet black."

† Rzaczynſki.

‡ Linnæus.

 criards

criards (ſcreamers) which they well merit for their troubleſome and continual cries during the education of their young, which laſts ſo long as a month or ſix weeks. Fowlers aſſure us, that they make no neſts, but drop their eggs on the gravel, and that theſe are greeniſh ſpotted with brown. The parents lurk in holes under the projecting brinks *; and hence ornithologiſts have inferred it to be the ſame with the *charadrios* of Ariſtotle, which, as the word imports, was an inhabitant of *channels*, or *gullies* †; and whoſe plumage, the philoſopher adds, is as diſagreeable as its voice. Ariſtotle alſo ſays, that it comes abroad at night, and lies concealed during the day ‡; this remark, though not preciſely applicable to the Ring Plover, has perhaps ſome relation to its habits, ſince it is heard very late in the evening. The charadrios was one of thoſe birds to which ancient medicine or rather ſuperſtition aſcribed occult virtues, and it was ſuppoſed to cure the jaundice: the patient needed only to look at the bird §, which at the ſame time turned aſide its eyes as if affected by

* Klein.

† Ariſtophanes gives the charadrios the office of conveying water into the city of the birds.

‡ Hiſt. Animal, *lib.* ix. 11.

§ The vender of this excellent remedy was careful to conceal his bird, ſelling only the ſight of it: this gave occaſion to a proverb among the Greeks, applied to thoſe who kept any thing precious or uſeful concealed, *imitating a charadrios.* Geſner.

the

the diſorder *. What imaginary remedies has human weakneſs ſought for its real ills !

* Heliodorus, *Æthiopic. lib.* iii.

[A] The Ring Plovers are common on the Britiſh coaſts in ſummer, but diſappear on the approach of winter.

The NOISY PLOVER.

Le Kildir. *Buff.*

FIFTH SPECIES.

Charadrius Vociferus. Linn. and Gmel.
Pluvialis Virginiana Torquata. Briff.
The Chattering Plover, or Kill-Deer. Catefby.

THE name *Kill-Deer*, which this bird has in Virginia, is expreffive of its cry. It is very common in that province and in Carolina, and is detefted by the fowlers, becaufe its clamours fcare away every other fort of game. There is a good figure of this bird in Catefby's work: it is as large, he fays, as the fnipe; its legs tall; all its upper furface is brown-gray; and the top of its head is hooded with the fame colour; its front, its throat, the under fide of its body, and the compafs of its neck, are white; the lower part of the neck is encircled by a black collar, below which is a white half collar: there is alfo a black bar on the breaft, which ftretches from the one wing to the other; the tail is pretty long, and black at the extremity; the reft of it, and the fuperior coverts, are of a rufous colour; the feet are yellowifh; the bill is black; the eye is

is large, and environed with a red circle. Theſe birds remain the whole year in Virginia and Carolina; they are found too in Louiſiana *. No difference can be perceived in the plumage between the male and the female.

A ſpecies akin to this, perhaps the ſame, is the collared plover of St. Domingo †, which requires no other deſcription; the only difference lies in the colours of the tail, and the deeper tint of the wings.

* Dr. Mauduit has received it from that country, and preſerves it in his cabinet.

† *Charadrius Vociferus, var.* Gmel.
Charadrius Torquatus. Linn.
Pluvialis Dominicenſis Torquata. Briſſ.

Briſſon ſays, "that the two middle quills of the tail are gray-"brown, tawny at the tip; the two next on either ſide gray-brown, "black near the tip, and the tip itſelf white; the outmoſt white at "its origin, ſtriped tranſverſely with blackiſh."

[A] Specific character of the Noiſy Plover, *Charadrius Vociferus*: "It has black bars on its breaſt, its neck, its front, and its "cheeks; its tail is yellow, with a black bar; its feet bright yel-"low."

The CRESTED PLOVER.

LE PLUVIER HUPPE'. *Buff.*

SIXTH SPECIES.

Charadrius Spinosus, var. Linn.
Pluvialis Persica Cristata. Briss.
The Black-breasted Indian Plover. Edw.

THIS Plover, which is found in Persia, is nearly as large as the golden plover, but somewhat taller; the feathers on the crown of the head are black, glistening with green; they are collected into a tuft, which reclines, falls back, and is about an inch long; the cheeks, the back of the head, and the sides of the neck, are marked with white; all the upper surface is deep chesnut; a black streak descends from the throat upon the breast, which, as well as the stomach, is black, with a fine violet gloss; the lower belly is white; the tail is white at its origin, and black at its extremity; the quills of the wing, too, are black, and the great coverts are marked with white.

This Plover is armed with a spur on the wing. The female is distinguished from the male; all its throat being white, and its black not shaded by any admixture.

The SPUR-WINGED PLOVER.

Le Pluvier a' Aigrette. *Buff.*

SEVENTH SPECIES.

Charadrius Spinosus. Linn. and Gmel.
Pluvialis Senegalensis Armata. Briss.

THE feathers on the back of the head extend into threads, as in the lapwing, and form a tuft more than an inch long: it is of the bulk of the golden plover, but taller, meaſuring a foot from the bill to the nails, and only eleven inches from the bill to the end of the tail; the top of the head, the tuft, the throat, and the mark on the ſtomach, are black, and alſo the great feathers of the wing, and the tips of thoſe of the tail; the upper ſurface is brown gray; the ſides of the neck, the belly, and the great coverts of the wing, are white tinged with fulvous: the ſpur on the fold of the wing is black, ſtrong, and ſix lines long. This ſpecies is found in Senegal, and occurs too in the hot parts of Aſia; for we received one from Aleppo.

[A] Specific character of the Spur-winged Plover, *Charadrius Spinoſus*: "Its wing-quills, its breaſt, and its feet, are deep black; "the back of its head creſted; its tail-quills half white; its baſ-"tard wings armed with ſpurs."

The HOODED PLOVER.

LE PLUVIER COIFFÉ. *Buff.*

EIGHTH SPECIES.

Charadrius Pileatus. Gmel.

A PORTION of yellow membrane paſſes on the front, and by its extenſion encircles the eye; a black hood, ſtretched behind into two or three ſhreds, covers the top of the head; the nape is white, and a broad black chin-piece, riſing under the eye, envelopes the throat, and encircles the top of the neck: all the fore ſide of the body is white; the upper ſide of the body is ruſty gray; the quills of the wing, and the end of the tail, are black; the feet are red, and there is a ſpot of the ſame colour near the point of the bill. This Plover is found in Senegal, like the preceding, but is a fourth ſmaller, and has no ſpur in the wing. The ſpecies is new.

The CROWNED PLOVER.

NINTH SPECIES.

Charadrius Coronatus. Gmel.
The Wreathed Plover. Lath.

THIS is one of the largeſt of the Plovers; it is a foot long, and its legs are taller than the golden plover; they are ruſty-coloured; the head is hooded with black, in which there is a white band, which encompaſſes the whole of the head, and forms a ſort of crown; the fore ſide of the neck is gray, and the gray colour of the breaſt is intermingled with black in coarſe waves; the belly is white; on the firſt half of the tail, and at its extremity, a black bar croſſes the white; the quills of the wing are black, and the great coverts white; all the upper ſurface is brown, gloſſed with greeniſh and purple. It is found at the Cape of Good Hope.

The WATTLED PLOVER.

LE PLUVIER À LAMBEAUX. *Buff.*

TENTH SPECIES,

Charadrius Bilobus. Gmel.

THE character from which we have derived the name of this bird, is a yellow membrane adhering to the corners of the bill, and hanging from the two ſides in pointed wattles. It is found in Malabar: it is of the bulk of the ordinary plover, but its legs are taller, and of a yellowiſh caſt; behind the eyes there is a white ſtreak, which edges the black hood of the head; the wing is black, and ſpotted with white on the great coverts; there is alſo black bordered with white on the tip of the tail; the upper ſurface, and the neck, are fulvous gray, and the under ſide of the body is white: this is the common, and, we might ſay, the uniform plumage of moſt of the Plovers.

The ARMED PLOVER of CAYENNE.

ELEVENTH SPECIES.

Charadrius Cayanus. Lath.

THIS is a Ring Plover, like the common one, but much taller: its bill, too, is longer, and its head not ſo round; a broad black band covers the front, incloſes the eyes, and joins into the black which ſtains the back of the neck, the top of the back, and gathers into a round mark on the breaſt: the throat is white, and alſo the fore ſide of the neck, and the under ſide of the body; a gray ſpace, with a white edging, forms a hood behind the head; the firſt half of the tail is white, and the reſt is black; the quills of the wings and the ſhoulders are black alſo; the reſt of the upper ſurface is gray mixed with white; the ſpurs are pretty long, and inſerted in the fold of the wings.

It appears to us, that the *amacozque* of Fernandez, *a noiſy bird, the plumage mixed with white and black, and a double collar, which is ſeen the whole year on the lake of Mexico, where it lives on aquatic worms*, is a Plover: we could have decided the queſtion, had Fernandez given the character of the feet.

The PLUVIAN.

Charadrius Melanocephalus. Gmel.
The Black-headed Plover. Lath.

IT is ſcarce equal to the little ringed plover, but its neck is longer and its bill ſtronger: the upper ſide of the head, of the neck, and of the back, is black; and there is a ſtreak of the ſame colour on the eyes, and ſome black waves on the breaſt: the great quills of the wing are mixed with black and white: the other parts of the wing, the middle quills and coverts, are of an handſome gray; the fore ſide of the neck is ruſty white, and the belly white; it has three toes, like the plover, but the bill is larger and thicker, and the inflation is more perceptible. Theſe differences ſeem to conſtitute a ſhade in the genus, and I have therefore given it a diſtinct name.

The GREAT PLOVER*.

Charadrius-Oedicnemus. Linn. and Gmel.
Pluvialis Major. Briſſ.
Otis-Oedicnemus. Lath.
Oedicnemus. Belon, Aldrov. and Johnſt.
Charadrius. Geſner.
Fedoa Noſtra Tertia. Ray.
The Stone Curlew. Will.
The Norfolk Plover. Penn.
The Thick-knee'd Buſtard. Lath.

THERE are few perſons who reſide in the provinces of Picardy, Orleanois, Beauce, Champagne, and Burgundy, but muſt have heard in the fields, in the evening, during the months of September, October, and November, the repeated cries *tūrrlui, tūrrlui,* of theſe birds: this is their call, which often re-echoes from hill to hill; and as it reſembles the articulated ſound of the curlew, it has probably given occaſion to the appellation of land curlew *(courlis de terre.)* Belon ſays, that at firſt ſight it appears ſo like the little buſtard, that he gave it the ſame name. But it is neither a curlew nor a buſtard: it is rather a plover, though

* In France it is commonly called *Courlis de Terre*, and on the coaſts of Picardy *St. Germer*. In Italy it is termed *Coruz*, according to Geſner and Aldrovandus; and at Rome *Carlotte*, according to Willughby: in ſome parts of Germany *Triel*, or *Griel*, according to Geſner.

 it

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THE THICK KNEED BUSTARD.

it has ſeveral peculiar features and habits, that disjoin it from the other ſpecies.

This bird is much larger than the golden plover, and even exceeds the woodcock: its thick legs have a remarkable ſwelling below the knee; for which reaſon Belon has applied the epithet *œdicnemus* *. Like the plover it has only three toes, which are very ſhort: its legs and feet are yellow; its bill yellowiſh from the origin to the middle, and from thence blackiſh to the extremity; and is of the ſame ſhape with that of the plover, only thicker: all the plumage is of a light gray and ruſty-gray ground, and ſpeckled with daſhes of brown and blackiſh, the ſtrokes very diſtinct on the neck and breaſt, and more confuſed on the back and the wings, which are croſſed with a whitiſh bar: two ſtreaks of ruſty white paſs above and below the eye: the ground is ruſty colour on the back and neck, and white under the belly, which is not ſpeckled.

This bird has great power of wing; it ſprings at a diſtance, eſpecially in the day-time, and flies pretty near the ground: it runs on the ſward and in the fields, as ſwiftly as a dog; and hence, in ſome provinces, it has been termed *the ſurveyor* (arpenteur.) After running, it ſtops ſhort, holding its body and head ſtill †; and on

* Formed from οιδεω, to ſwell, and κνημη, the upper part of the leg or knee.

† Albin.

the leaſt noiſe it ſquats on the ground. Flies, beetles, ſmall ſnails, &c. are its chief food, together with ſome other inſects that are found in fallow grounds, ſuch as crickets, graſshoppers, &c. *: for it conſtantly inhabits the brows of banks, and prefers the ſtony, ſandy, and dry ſpots. In Beauce, Salerne tells us, bad land is called *curlew-land*. Theſe birds, ſolitary and tranquil during the day, begin to ſtir on the approach of the evening; then they ſpread on all ſides, flying rapidly, and crying on the heights with all their might: their voice, which is heard at a great diſtance, reſembles the ſound of a third flute, dwelling on three or four tones, from a flat to a ſharp. This is the time that they approach our dwellings †.

Theſe nocturnal habits ſeem to ſhew, that this bird ſees better in the night than in the day; yet is its ſight very acute in the day-time: the poſition too of its large eyes enables it to ſee as well before as behind: it deſcries the ſportſman at a good diſtance, ſo that it can riſe and eſcape before he gets within ſhot of it. It is as wild as it is timorous; fear alone confines it during the day, and permits it not to come abroad or utter its cries till night: and ſo invincible is its timidity, that if a perſon enter the

* M. Baillon, who has obſerved this bird on the coaſts of Picardy, informs us, that it alſo eats little black lizards, which it finds on the downs, and even ſmall adders.

† Sloane.

room

room where it is kept, it endeavours to conceal itſelf, or ſneak off, and runs againſt whatever happens to be in its way. It is ſaid, that this bird foreſees the changes of the weather, and announces rain: Geſner remarks, that even when confined, it is much diſturbed before a ſtorm.

This Great Plover, or Stone Curlew, forms an exception to the numerous ſpecies, which having a part of their leg naked, are reckoned inhabitants of ſhores and boggy grounds; ſince it keeps ever at a diſtance from water or marſhes, and reſides in dry upland ſituations *.

Theſe are not the only habits in which they differ from the plovers. The ſeaſons of their migrations are not the ſame; for they retire in November, during the latter rains of autumn, having, previous to their departure, which commences at night †, collected at the call of their leader, in flocks of three or four hundred; and they return early in the ſpring, being ſeen in the end of March in Beauce, Sologne, Berry, and ſome other provinces of France. The female lays only two, or ſometimes three eggs, on the naked ground, between ſtones ‡, or in a ſmall hole which ſhe forms in the ſand of heaths or downs.

* We may hence ſee with what little reaſon Geſner took it for the *charadrios* of Ariſtotle, which is decidedly a ſhore bird. See the article of the *Ring-Plover*.

† Salerne.

‡ Idem.

downs *. The male purſues her eagerly in the love ſeaſon; he is as conſtant as he is ardent, and never deſerts her: he aſſiſts in leading the young, and inſtructing them to diſtinguiſh their food. The education is tedious; for though the brood can ſoon walk after they are hatched, it is a conſiderable time before they have ſtrength ſufficient to fly. Belon found ſome that could not uſe their wings in the end of October; which induced him to ſuppoſe that the eggs are laid at a late ſeaſon. But the Chevalier Deſmazy, who obſerved theſe birds at Malta †, informs us, that they have regularly two hatches, one in the ſpring, and another in the end of Auguſt. He alſo aſſures us, that the incubation laſts thirty days. The young ones are excellent game, and the adults likewiſe are eaten, though their fleſh is blacker and dryer. The chaſe of

* During the eight days which I wandered on the dry ſands that cover the ſea-ſhore from the mouth of the Somme to the extremity of the Boulonnois, I met with a neſt which appeared to be that of the *ſaint-germer* (ſtone-curlew). To aſcertain this, I remained ſitting on the ſand till evening, having raiſed a little hillock in front to conceal myſelf. The birds which inhabit thoſe ſands being accuſtomed to ſee the ſurface perpetually changed by the wind, are not in the leaſt diſturbed at finding new cavities or elevations. My trouble was recompenſed: in the evening the bird came to her eggs, and I recognized it to be the *ſaint-germer*, or ſtone-curlew: her neſt placed expoſed on a flat in a ſand-plain, conſiſted only of a little hole of an inch, and of an eliptical ſhape, containing three eggs, pretty large, and of a ſingular colour. *Obſervation made by M. Baillon, of Montreuil-ſur-mer.*

† In Malta it is called *tolaride.*

the

the ſtone curlews was reſerved in Malta for the maſter, before the introduction of our partridges, about the middle of laſt century*.

Theſe birds do not, like the plovers, advance into the north in ſummer; at leaſt Linnæus has not inſerted them in his *Fauna Suecica*. Willughby aſſures us, that in England they are found in Norfolk and in Cornwall; yet Charleton, who gives himſelf out for an experienced ſportſman, confeſſes that he never met with any. Indeed, the wild diſpoſition of the ſtone curlew, and its retirement during the day, might long conceal it from the eyes of obſervers; and Belon, who firſt diſcovered it in France, remarks that no perſon could then tell him its name.

I had one of theſe birds a month or five weeks at my houſe in the country. It fed on ſoup, bread, and raw fleſh, and preferred the laſt. It ate not only in the day-time, but alſo at night; for its proviſion, when given in the evening, was obſerved to be diminiſhed next morning.

This bird ſeemed to me of a peaceful temper, but timorous and wild; and I am induced to think that this is really the caſe, as it is ſeldom ſeen in the day, and prefers the obſcurity of night for its aſſociations. I obſerved, that as ſoon as it perceived a perſon, even at a diſtance, it endeavoured to eſcape, and was ſo overcome with fear, as to hurt itſelf in the flurry. It is, therefore, one of thoſe birds which nature has

* In the time of the grand maſter, Martin de Redin.

deſtined

deftined to live remote from us, and has endued with the inftinct for that purpofe.

The one which I mention uttered no cry; it only made, two or three nights before its death, a fort of feeble whiftle, which was perhaps an expreffion of pain, for the root of its bill and its feet were much gafhed, owing to its violent ftruggling in the cage, at the fight of any new object.

[A] Specific character of the Thick-knee'd Buftard, *Charadrius Oedicnemus*: "It is gray; its two primary wing-quills black, and in "the middle white; its bill fharp; its feet cinereous." Thefe birds are very frequent in Norfolk; they breed in rabbit burrows; their eggs are olive, with reddifh fpots.

No 200

THE LONG LEGGED PLOVER

The LONG-SHANK.

L'ECHASSE*. *Buff.*

Charadrius Himantopus †. Linn. and Gmel.
Charadrius Autumnalis. Haſſel.
Himantopus. Aldrov. Will. Sibb. Klein, &c.
Hæmantopus. Geſner.
The Long-legs. Ray and Sloane.
The Long-legged Plover. Penn. Lath. &c.

THE Long-Shank is among the birds what the jerboa is among the quadrupeds: its legs, which are thrice as long as the body, preſent a monſtrous diſproportion. Such extravagant and random productions of nature exhibit the traces of her magnificent and boundleſs plan; and, like ſhades in a picture, they heighten by their contraſt the beauty of the ſcene. The enormous length of this bird's legs will hardly allow it to reach the earth with its bill to gather its

* *i. e.* Stilts.

† In Greek Ἱμαντόπους, from ἱμας, a thong, and πους, the foot; ſo termed becauſe of its ſlender legs. Pliny only writes the ſame name in Roman characters, *himantopus*, which the moderns have copied. In Italian it is called, according to Belon, *Merlo Aquaiolo Grande* (the great water black-bird) in Flemiſh *Mathcen:* in German *Froembder Vogel,* (the foreign bird) and alſo, according to Sibbald, *Dunn Bein* and *Riemen Bein* (dun-ſhank and thong-ſhank). In Jamaica it has the appellation of *long-legged crane.*

its food; they are alſo ſlender, weak, and tottering *; and its three toes are diſproportionally ſmall, and give a baſe too narrow for its tall body. Hence the names of this bird in the ancient and modern languages refer to the ſoftneſs and pliancy of its legs, and to their extreme length.

The ſlow laborious pace of this bird † ſeems however to be compenſated by its power of flying. Its wings are long, and extend beyond its tail, which is pretty ſhort; their colour, as well as that of the back, is gloſſed with greeniſh blue; the back of the head is brown-gray: the upper ſide of the neck is mixed with blackiſh and white: all the under ſurface is white from the throat to the end of the tail: the feet are red, and eight inches high, including the naked part, which is three inches: the protuberance of the knee is ſtrongly marked on its ſmooth, ſlender legs: the bill is black, cylindrical, a little flat at the ſides near the point, two inches and ten lines long, cloſe inſerted on an elevated front, which gives the head a round ſhape.

We are little acquainted with the habits of this bird, whoſe ſpecies is ſcanty and rare ‡. It

* Aldrovandus, *tom.* iii. *p.* 444.

† *Inceſſus, niſi æquali alarum expanſione librata ſit, difficilis videtur in tantâ crurum & pedum longitudine & exilitate.* Sibbald.

‡ We received a Long-Shank from Beauvoir, in Lower Poitou, as an unknown bird; which proves that it ſeldom appears on thoſe coaſts: this was killed in an old ſalt-pit; it was remarked in flying to ſtretch its legs backwards eight inches beyond the tail.

probably

probably lives on inſects and worms, at the verge of ſtreams and marſhes. Pliny mentions it under the name *himantopus*, and ſays, "that it is a "native of Egypt, and ſubſiſts chiefly on flies, "and has never been kept more than a few "days alive in Italy *." Yet Belon ſpeaks of it as an inhabitant of France; and the Count Marſigli ſaw it on the Danube. It appears alſo to frequent the northern countries; for though Klein ſays that he never ſaw it on the coaſts of the Baltic, Sibbald did in Scotland, and has accurately deſcribed one that was killed near Dumfries †.

The Long-Shank occurs alſo in the new continent. Fernandez ſaw a ſpecies or rather a variety in New Spain; and he ſays that this bird, an inhabitant of cold countries, does not deſcend till winter to Mexico; yet Sloane ranks it among the Jamaica birds. It follows from theſe apparently contradictory authorities, that the ſpecies of the Long-Shank, which contains exceedingly few individuals, is diffuſed or rather diſperſed, like that of the ring plover, in very remote countries.—The Mexican Long-Shank, indicated by Fernandez, is rather larger than that of Europe; it has a mixture of white in the black of its wings: but theſe differences

* Lib. x. 46. Oppian likewiſe calls it *himantopus*. (*Exeutic. lib.* ii.)

† *Scotia Illuſtrata*, par. II. lib. iii. p. 19.

ſeem

ſeem inſufficient to conſtitute a diſtinct ſpecies *.

* *Comaltecatl.* Fernandez.
Himantopus Mexicanus. Briſſ.

[A] Specific character of the Long-Shank, *Charadrius Himantopus*: "It is white, its back black; its bill black, and longer than "its head; its feet red, and very long." This ſingular bird is extremely rare in Britain. Sir Robert Sibbald gives a very full deſcription of one ſhot at a lake near the town of Dumfries; and Mr. White has lately deſcribed another ſhot on the verge of Frinſham-pond in Surrey: both of them have given engravings of the bird; but in Sibbald's figure the bill is repreſented quite ſtraight, and in White's it is ſomewhat bent inwards.

THE PIED OYSTER CATCHER.

The OYSTER-CATCHER*.

L'HUITRIER; *vulgairement* LA PIE DE MER. *Buff.*

Hæmatopus Oſtralegus. Linn. and Gmel.
Scolopax Pica. Scopol.
Hæmatopus. Bel. Aldrov. Johnſt. Sibb. &c.
Pica Marina. Charleton.
Oſtralega. Briſſ.
The Sea Pie. Alb.
The Pied Oyſter-catcher. Lath.

THOSE birds which diſperſe in our fields or retire under the ſhade of our foreſts, inhabit the moſt enchanting ſcenes, and the moſt peaceful retreats of nature. But ſuch is not the lot of all the feathered race: ſome are confined to the ſolitary ſhores; to the naked beach, where the billows diſpute the poſſeſſion of the land; to the rocks, on which the ſurges daſh and roar; and to the inſulated ſhelving banks which are beaten by the murmuring waves. In theſe deſert ſtations, ſo formidable to every other being,

* In French *Pie de Mer* (ſea-pie) and ſometimes *Becaſſe de Mer* (ſea-woodcock.) In Gothland it is called *Marſpitt:* in the iſle of Oëland *Strandſk Jura:* in Norway *Tield, Glib, Strand-ſkuire, Strand-ſkade:* in the Feroe iſlands *Kielder:* in Iceland the male is named *Tilldur,* and the female *Tilldra.*

 a few

a few birds, ſuch as the Oyſter-catcher, obtain ſubſiſtance and ſecurity, and even enjoy pleaſure and love. It lives on ſea-worms, oyſters, limpets, and other bivalves, which it gathers on the ſand of the ſea-ſhore: it keeps conſtantly on the banks, which are left dry at low water, or on the little channels, where it follows the refluent tide; and never retires farther than the ſandy hillocks which limit the beach. This bird has alſo been called the *ſea-pie*, not only on account of its plumage, which is black and white, but becauſe it makes a continual noiſe or cry, eſpecially when it is in flocks: this cry is ſhrill and abrupt, repeated inceſſantly whether at reſt or on the wing.

This bird is ſeldom ſeen on moſt of the French coaſts; yet it is known in Saintonge *, and in Picardy †. In the latter province it ſometimes breeds, and arrives in very conſiderable flocks when the wind is at eaſt or north-weſt. They repoſe on the ſand of the beach, waiting for a fair wind to waft them to their uſual abode. They are believed to come from Great Britain, where they are indeed very common, particularly on the eaſtern coaſts of that iſland ‡. They alſo advance farther north; for they are found in Gothland, in the iſle of Oë-

* Belon.

† *Note communicated by M. Baillon, of Montreuil-ſur-mer.*

‡ Willughby.

land *, and in the Danish islands, as far as Norway † and Iceland. On the other hand, Captain Cook saw them on the coasts of *Terra del Fuego*, and near the Straits of Magellan ‡. They have been discovered at Dusky Bay in New Zealand: Dampier remarked them on the shores of New Holland; and Kæmpfer assures us, that they are as common in Japan as in Europe. Thus the Oyster-catcher inhabits all the shores of the ancient continent; and we need not be surprized to find it in the new. Father Feuillée observed it on the east of *Terra Firma*: Wafer at Darien: Catesby at Carolina and the Bahama Islands: Page du Pratz at Louisiana §. And this species, so diffused, has no variety, but every where the same, and disjoined from all others. None indeed of the shore birds has, with the stature of the Oyster-catcher, and its short legs, the same form of bill, or the same habits and œconomy.

* *Fauna Suecica*, N° 161.

† Brunnich, *Ornithol. Borealis*, N° 189.

‡ "Sea-pies or black Oyster-catchers inhabit, with many other "birds, the verge of these coasts, surrounded by immense floating "beds of samphire on the east point of *Terra del Fuego*, and of the "Strait."—*Cook's second Voyage*.

§ "The hatchet-bill is so called, because its bill is red, and fa- "shioned like the head of an hatchet: its feet are also of a very "fine red, for which reason it is often named *red-foot*. As it lives "wholly on shell-fish, it frequents the sea-side, and is never seen "on the land, except before some great tempest, which its retreat "announces." Le Page du Pratz. *Histoire de la Louisiane, tom.* ii. *p.* 117.

This bird is as large as the crow; its bill four inches long, contracted, and, as it were, compressed vertically above the noſtrils, and flattened at the ſides like a wedge as far as the tip, whoſe ſquare ſection forms a cutting edge *: a ſtructure peculiar to itſelf, and which enables its bill to raiſe up and detach the oyſters, limpets and other ſhell-fiſh from their beds and rocks.

The Oyſter-catcher is one of thoſe few birds which have only three toes. This ſingle circumſtance has led ſyſtematic writers to range it next the buſtard. Yet it is apparent how wide is the ſeparation in the order of nature; for not only this bird haunts the ſea-ſhores, it even ſwims, though its feet are almoſt entirely devoid of membranes. It is true that, according to M. Baillon, who obſerved the Oyſter-catcher on the coaſts of Picardy, its method of ſwimming is merely paſſive, but it has no averſion to repoſe on the water, and leaves the ſea for the land whenever it chooſes.

Its black and white plumage, and its long bill, have given occaſion to the inaccurate appellations of *ſea-pie* and *ſea-woodcock:* the name *Oyſter-catcher* is proper, ſince it expreſſes its mode of ſubſiſting. Cateſby found oyſters in its ſtomach, and Willughby entire limpets. The organ of digeſtion is ſpacious and muſcular, according to

* Le Page du Pratz, *ut ſupra.*

Belon;

Belon; who adds, that the fleſh of the bird is black and hard, and of a rank taſte. Yet M. Baillon avers, that the Oyſter-catcher is always fat in the winter, and that the young ones are tolerably pleaſant food. He kept one more than two months in his garden, where it lived chiefly on earth-worms like the curlews, but alſo ate raw fleſh and bread, with which it was well content. It drank indifferently either ſalt or freſh water, without ſhewing the leaſt preference to either: yet in the ſtate of nature theſe birds never inhabit the marſhes or the mouths of rivers; they remain conſtantly on or near the beach; probably becauſe freſh waters do not afford the proper ſubſiſtence.

The Oyſter-catcher makes no neſt; its eggs, which are grayiſh and ſpotted with black, it lays on the naked ſand, out of the reach of the tide, but without any preparation for their reception; it only ſeems to ſelect a high ſpot, ſtrewed with fragments of ſhells. The number of eggs is uſually four or five, and the time of incubation is twenty or twenty-one days: the female does not cover them aſſiduouſly; ſhe ſeems, in this reſpect, to do as moſt of the birds that inhabit the ſea-ſhores, and to leave the hatch to the ſun's heat part of the day, leaving her charge at nine or ten o'clock of the morning, and not returning, unleſs on occaſion of rain, till three in the afternoon. The young, when they have juſt burſt the ſhell, are covered with a blackiſh

down. They crawl on the ſand the firſt day; they ſoon begin to run, and then they conceal themſelves ſo well in the tufts of graſs that it is difficult to find them *.

The bill and feet of the Oyſter-catcher are of a fine coral red: hence Belon has called it *hæmatopus* †, taking it for the *himantopus* of Pliny; but theſe two names ought not to be confounded, or applied to the ſame bird. The former ſignifies *red legs*, and might be referred to the Oyſter-catcher; but it is not found in Pliny, though Dalechamp reads it ſo: and the latter, expreſſive of tall, frail, and ſlender legs, belongs not to the Oyſter-catcher, but to the long-ſhank. A word of Pliny in this paſſage might have apprized Belon of his miſtake; *præcipue ei pabulum muſcæ* ‡: the himantopus, which feeds on flies, can never be the Oyſter-catcher, which lives on ſhell-fiſh.

Willughby, in cautioning us not to confound this bird, under the name of *hæmantopus*, with the himantopus with long and delicate legs, ſeems to point out another miſtake of Belon's; who, in his deſcription of the Oyſter-catcher, attributes to it this delicacy of feet, incompatible, it would ſeem, with its mode of life, which obliges it to clamber on the edges of rocks. Its feet and

* *Note communicated by M. Baillon, of Montreuil-ſur-mer.*

† From ἡμα, blood, and πȣς, the foot.

‡ *i. e.* flies are its chief food, *lib.* x. 47.

toes are covered with a rough and hard ſcale *. It is more than probable, therefore, that here, as in other caſes, the confuſion of names has begotten that of the objects: the term *himantopus* ought to be appropriated to the longſhank, and *hæmatopus* ought to be entirely expunged, as vague and undefined.

The outer and middle toes of the Oyſter-catcher are connected as far as the firſt joint by a portion of a membrane, and all the three are ſurrounded with a membranous edge. Its eyelids are red, as well as its bill, and its iris is gold-yellow; above each eye there is a little white ſpot: the head, the neck, the ſhoulders, are black, and alſo the upper ſurface of the wings; but this black is deeper in the male than in the female: under the throat there is a white collar; all the under ſide of the body from the breaſt is white, and the half of the tail, whoſe tip is black: a white bar, formed by the great coverts, interſects the dun black of the wing; and theſe colours have probably ſuggeſted the name of *pie*, though it differs from that bird in every other reſpect, particularly in the length of its tail, which is only four inches, and covered three-fourths by the wing: the

* "The legs are ſtrong and thick . . . and the feet remarkable "by the hard and ſcaly ſkin which covers them. . . . Nature having "not only given them a bill faſhioned for opening oyſters, but having alſo armed their legs and feet with ſcales againſt the ſharp "edges."—Cateſby, *vol.* i. *p.* 85.

feet, together with the ſmall naked part of the leg above the knee, are ſcarce two inches, though the bird is about ſixteen inches long.

[A] Gmelin makes the Oyſter-catcher a ſeparate genus, containing only one ſpecies. It is a very ſhy bird, but common on moſt of the Engliſh coaſts. If a perſon approaches its neſt, it vents a ſhrill ſcream. Theſe birds gather in large flocks during winter.

The SWIFT-RUNNER.

Le Coure-vite. *Buff.*

Charadrius Gallicus. Gmel.
Curſorius Europæus. Lath. Ind.
Pluvialis Morinellus Flaveſcens. Gerin.
The Cream-coloured Plover. Lath. Syn.

The two birds repreſented in Nos 795 and 892 of our *Pl. Enl.* are of a new genus, which required a diſtinct name. They reſemble the plover in the feet, which have only three toes, but differ in the ſhape of the bill, which is curved, whereas that of the plovers is ſtraight and inflated near the end. The firſt was killed in France, where it had probably ſtrayed, ſince no other has been ſeen. It ran with rapidity along the ſhore, and hence it derived its name. We have ſince received from the coaſt of Coromandel a bird entirely ſimilar in form, and different only in its colours; ſo that it may be regarded as a variety, or at leaſt a kindred ſpecies. Both of them have larger legs than the plovers; they are as large, but not ſo thick; their toes are very ſhort, particularly the two lateral ones. The plumage of the firſt is gray, waſhed with rufous brown; on the eye

is

is a lighter ſtreak, almoſt white, which ſtretches backwards, and below it a black ſtreak riſing from the outer angle of the eye: the top of the head is rufous; the quills of the wing are black, and each feather of the tail, except the two middle ones, has a black ſpot, with another white one near the point.

The ſecond, which came from Coromandel, is rather ſmaller than the firſt; the fore ſide of the neck and breaſt of a fine cheſnut-rufous, which loſes itſelf in black on the belly; the quills of the wing are black; the upper ſurface gray; the lower belly white; the head enveloped with rufous nearly as in the firſt: in both the bill and feet are yellowiſh white.

THE TURNSTONE.

The TURN-STONE.

Le Tourne-Pierre. *Buff.*

Tringa-Interpres. Linn. and Gmel.
Arenaria. Briff.
Morinellus Marinus. Will. and Ray.
The Hebridal Sandpiper. Penn. and Lightfoot.
The Turn-ftone, or Sea Dotterel. Edw. Lath. &c.

We adopt the name *Turn-ftone*, given by Catefby, becaufe it indicates the fingular habit which this bird has of turning over the ftones at the water's-edge, to difcover the worms and infects that lurk under thefe; whereas all the other fhore-birds content themfelves with fearching in the fand or mud. "Being at fea," fays Catefby, "forty leagues from Florida, in "the latitude of 31 degrees, a bird flew on our "fhip, and was caught. It was very alert in "turning the ftones that lay befide it: in doing "fo, it ufed only its upper mandible, and was "able to turn over very nimbly ftones of three "pounds weight *." This action implies fingular force and dexterity in a bird which is hardly fo large as the dufky fandpiper.

* Carolina, vol. i. p. 72.

It

It has a bill of a harder and more horny ſubſtance than the other little ſhore-birds, and it forms a ſmall family amid that numerous tribe: the bill is thick at the root, and gradually tapers to a point: the upper-part is ſomewhat compreſſed, and appears to riſe with a ſlight curve: it is black, and an inch long: the feet have no membranes, are pretty ſhort, and of an orange-colour.

The plumage of the Turn-ſtone reſembles that of the ringed plover, in the white and black which interſect it, but without tracing diſtinctly a collar, and in the mixture of rufous on the back. This ſimilarity in its colours has probably miſled Brown, Willughby, and Ray, who have given it the appellation *morinellus* (dotterel); though it is of a kind entirely diſtinct from the plovers, being furniſhed with a fourth toe and a differently ſhaped bill.

The ſpecies of the Turn-ſtone is common to both continents. It is known on the weſt coaſt of England, where theſe appear generally in ſmall companies of three or four *. They are equally known on the coaſt of Norfolk †, and in ſome of the iſlands of Gothland ‡; and we have reaſon to believe that it is the ſame bird which, on the ſhores of Picardy, is called the *bune*. We received one from the Cape of Good Hope, which

* Willughby.
† *Id. Ibid.*
‡ *Helighbolmen* and *Claſen*. Fauna Suecica, Nº 154.

which was of the ſame ſize, and, except ſome ſlight differences, of the ſame colour with that of Europe. Cateſby ſaw theſe birds near the coaſts of Florida *; and we cannot divine why Briſſon reckons the American Turn-ſtone different from the European. We received one alſo from Cayenne, which was only ſomewhat larger; and Edwards mentions another ſent from Hudſon's Bay. Thus this ſpecies, though it contains few individuals, has, like many other aquatic birds, ſpread from north to ſouth in both continents, following the ſea-ſhore, which yields it ſubſiſtence.

The gray Turn-ſtone of Cayenne appears to be a variety of this ſpecies, and to which we ſhould refer the two birds repreſented in the *Planches Enluminées*, under the appellations of *Coulon-chaud de Cayenne*, and *Coulon-chaud gris de Cayenne*; for we can perceive no eſſential difference. We ſhould even regard them as the females of the firſt ſpecies, of which the male would have ſtronger colours; but we ſuſpend our judgment, becauſe Willughby aſſures us that he could diſcern no difference between the plumage of the male and female of the Turn-ſtones which he deſcribed.

* "Comparing this bird with the deſcription which Mr. Willughby gives of the ſea-lark (turn-ſtone), I found it was the ſame "ſpecies." Cateſby.

[A] Specific character of the Turn-ſtone. *Tringa-Interpres*: "Its "feet are red, its body black, variegated with white and ferrugi-"nous; its breaſt and belly white."

The WATER OUZEL*.

LE MERLE D'EAU. *Buff.*

Sturnus Cinclus. Linn. and Gmel.
Merula Aquatica. Gesner, Ald. Johnst. Briss. &c.
Turdus Aquaticus. Klein.
Motacilla-Cinclus. Scop.
Turdus-Cinclus. Lath.

THOUGH this bird has received the names of Ouzel, of Stare, of Thrush, or of Wagtail, it is a water-fowl, which frequents the lakes and rills on lofty mountains. It resembles the blackbird in size, only somewhat shorter, and in the colour of its plumage, which is almost black; it has also a white space on the breast: but it is taciturn, it walks leisurely with measured steps, and runs beside the springs and brooks, which it never leaves †; preferring the limpid streams, whose fall is rapid, and whose bed is broken with stones and fragments of rocks. It is found near torrents and cascades,

* In Italian *Merla Aquaiola:* near Belinzone *Lerlichirollo*, and about lake Maggiore *Folun d'Aqua*, according to Gesner: in German *Bach-Amsel, Wasser Amsel:* in Swiss *Wasser Trostle:* in Swedish *Watn-Stare.*

† Schwenckfield.

and

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THE WATER OUZEL.

and especially in the pebbly channels of clear rivulets *.

Its habits are very singular. Aquatic birds with palmated feet swim or dive; those which inhabit the shores, without wetting their body, wade with their tall legs; but the Water-Ouzel walks quite into the flood, following the declivity of the ground: it is observed to enter by degrees, till the water reaches its neck; and it still advances, holding its head not higher than usual, though completely immersed: it continues to walk under the water, and even descends to the bottom, where it saunters as on the dry bank. We are indebted to M. Hebert for the first account of this extraordinary habit, which I know not to belong to any other bird. I shall here give the observations which he was pleased to communicate to me.

" I lay ambushed on the verge of the lake
" Nantua, in a hut formed of pine-branches
" and snow, where I patiently waited till a boat,
" which was rowing on the lake, should drive
" some wild-ducks to the water's edge. I ob-
" served without being perceived: before me
" was a small inlet, the bottom of which gently

* The Water-Ouzel has a very wide mouth; its feathers are greasy like the ducks, which enables it the easier to dive under water for aquatic insects: it forms its nest with moss near rivulets, and fashions it like a vault; its eggs are four in number. *Extract of a letter from Dr. Hermann to M. de Montbeillard, dated Strasburg, 22d September 1774.*

" ſhelved, and might be about two or three feet
" deep in the middle. A Water-Ouzel ſtopped
" here more than an hour, and I had full leiſure
" to view its manœuvres. It entered into the
" water, diſappeared, and again emerged on the
" other ſide of the inlet, which it thus repeat-
" edly forded. It traverſed the whole of the bot-
" tom, and ſeemed not to have changed its ele-
" ment, and diſcovered no heſitation or reluc-
" tance in the immerſion. However, I per-
" ceived ſeveral times, that as often as it waded
" deeper than the knee, it diſplayed its wings,
" and allowed them to hang to the ground. I
" remarked, too, that when I could diſcern it at
" the bottom of the water, it appeared inveloped
" with air, which gave it a brilliant ſurface; like
" ſome ſorts of beetles, which are always in wa-
" ter, incloſed with a bubble of air. Its view
" in dropping its wings on entering the water,
" might be to confine this air; it was certainly
" never without ſome, and it ſeemed to quiver.
" Theſe ſingular habits of the Water-Ouzel
" were unknown to all the ſportſmen whom I
" have talked with; and, perhaps, without the
" accident of the ſnow-hut, I ſhould have ever
" been ignorant of them: but I can aver, that
" the bird came to my very feet, and, that I
" might obſerve it, I did not kill it *."

The hiſtory of birds preſents few facts more curious than the foregoing. Linnæus had

* *Note communicated by M. Hebert to M. le Comte de Buffon.*

rightly

rightly ſaid, that the Water-Ouzel deſcends into the ſtreams, and again emerges with much dexterity *; and Willughby had remarked that, though cloven-footed, this bird dived: but neither of them ſeems to have known that it plunged in order to walk on the bottom. We may eaſily ſuppoſe, that for this purpoſe a pebbly channel and clear water are requiſite, and that a ſlimy ground would be altogether improper. Accordingly, this bird is found only in mountainous countries, at ſources of rivers, and in the torrents which pour down from the rocks; as in Weſtmorland and other hilly parts of England †: in France, among the mountains of Bugey and Voſges, and in Switzerland ‡. It ſits on the ſtones through which the rills wind their courſe. It flies very ſwiftly ſtraight forward, razing the ſurface of the water, like a kingfiſher. When on wing, it utters a feeble cry, eſpecially in the ſeaſon of ſpring: it then aſſociates with its female, though at all other times it goes ſingle ||. The female lays four or five eggs; conceals her neſt with great care, and often places it near the paper-mills conſtructed on brooks.

The ſeaſon in which Hebert ſaw the Water-Ouzel, proves that it is not a bird of paſſage.

* *Fauna Suecica.*

† Willughby.

‡ *Idem.*

|| *Idem.*

It remains all winter in our mountains, and dreads not the rigour of winter even in Sweden, where it ſeeks the cataracts and whirlpools, which are not affected by the froſt *.

The nails of this bird are very ſtrong and curved, and ſerve to claſp the pebbles, as it walks at the bottom of the water: the feet have the ſame conformation as thoſe of the land ouzels: like them alſo, it has the hind toe and nail ſtronger than thoſe placed before, and thoſe toes are diſtinctly parted, and without any portion of membrane, as Willughby ſuppoſed. The leg is feathered to the knee; the bill is ſhort and ſlender, both mandibles tapering equally, and arched ſlightly near the point.

The bill of this bird, the feet and the neck being ſhort, we might conceive it requiſite to walk under the water, to catch the ſmall fiſh and aquatic inſects on which it feeds. Its plumage, which is thick and clothed with down, ſeems impenetrable by water, which enables it to remain without inconvenience in that fluid; its eyes are large, of a fine brown; the eye-lids white, and they muſt be kept open under water, that the bird may diſtinguiſh its prey.

A fine white ſpace covers the neck and breaſt; the head and the upper ſide of the neck, as far as the ſhoulders and the border of the white ſpace, are ruſty aſh-colour, or cheſnut; the

* *Fauna Suecica.*

back,

back, the belly, and the wings, which reach not beyond the tail, are of a blackiſh and ſlaty cinereous; the tail is very ſhort, and has nothing remarkable.

[A] Specific character of the Water-Ouzel, *Turdus-Cinclus*: "Its bill and feet are black; its ſtraps white; its tail and rump "gray and brown."

The WATER-THRUSH.

LA GRIVE D'EAU. *Buff.*

Tringa Macularia. Linn. and Gmel.
Turdus Aquaticus. Briſſ.
The Spotted Tringa. Edw.
The Spotted Sandpiper. Penn. and Lath.

THIS bird has the ſpeckled plumage and the ſize of the throſtle: its feet reſemble thoſe of the preceding; its nails are large and hooked, particularly the hind one; but its bill is ſimilar to that of the purre, of the duſky ſandpiper, and of other ſmall ſhore birds, and the lower part of its leg is naked: it is therefore wide of being a thruſh. It appears to be a foreign ſpecies, little related to the European birds: yet Edwards preſumes that it is common to both continents, as he received one from the county of Eſſex, where it had ſtrayed, no other having ever been ſeen there.

The bill is eleven or twelve lines in length: it is fleſh-coloured at the baſe, and brown near the point; the upper mandible is marked on each ſide by a furrow, which extends from the noſtrils to the extremity of the bill; the upper ſurface of the body is ſprinkled with blackiſh ſpots

on

on an olive-brown ground, as the under ſurface is ſpeckled on a lighter and whitiſh ground; there is another white bar above each eye, and the quills of the wing are blackiſh; a ſmall membrane joins the outer toe, near the root, to the middle one.

[A] Specific character of the Spotted Sandpiper, *Tringa Maculata:* "The baſe of its bill and its feet are carnation; its body "ſpotted all over; its eye-brows, and a double bar on its wings, "white."

The KNOT.

Le Canut. *Buff.*

Tringa-Canutus. Linn. and Gmel.

It is probable that in ſome of the northern countries there are traditionary anecdotes of this bird, ſince it retains the name of Canute, the Dane, king of England *. It would much reſemble the gray lapwing, were it as large, and its bill otherwiſe ſhaped. This is pretty thick at the baſe, and tapers gradually to the extremity, which is not very pointed, yet not inflated like the bill of the lapwing: all the upper ſide of the body is cinereous and waved; the white tips of the great coverts trace a line on the wing; blackiſh creſcents on the white-gray ground mark the feathers of the rump: all the under ſide of the body is white ſpotted with gray on the throat and breaſt; the lower part of the leg is naked; the tail does not exceed the cloſed wings. Willughby ſays, that he ſaw one of theſe birds in Lincolnſhire, about the beginning of winter, and that they remain there two

* That monarch is ſaid to have been remarkably fond of the fleſh of this bird. *Willughby.*

or

or three months, in flocks by the ſea-ſhore, and afterwards diſappear: he adds, that he ſaw another near Liverpool. That which Edwards deſcribes, was found in the London market, in the hard winter of 1740; which makes me think that they never advance to the ſouth of Great Britain, but in the moſt ſevere ſeaſons. They muſt, however, be more common in the northern parts of that iſland, ſince Willughby deſcribes a method of fattening them, by feeding them with bread ſoaked in milk, and ſpeaks of the exquiſite flavour thus communicated to their fleſh. He ſubjoins, that, at firſt ſight, a perſon would not diſtinguiſh them from the ſandpipers *(tringæ)*, but by the white bar on the wing. The bill, he remarks, too, is of a harder ſubſtance than uſual in other birds, in which its ſtructure reſembles that of the woodcock.

An indication given by Linnæus would ſhew, that this bird is found in Sweden; yet does a difficulty occur: for, according to Willughby, the feet of the *Knot* are cloven, but Linnæus repreſents his *Canutus* as having its outer toe connected by the firſt joint to that of the middle. If both theſe obſervers have been accurate, we muſt regard the two birds as belonging to diſtinct ſpecies.

[A] Specific character of the Knot, *Tringa-Canutus*: "Its bill "is ſmooth, its feet aſhy, its primary wing-quills ſerrated, its "outermoſt tail-quill ſpotleſs white."

The RAILS.

Le Rales. *Buff.*

THESE birds conſtitute a large family, and their habits are different from thoſe of the other ſhore-birds, which reſide on ſands and gravel. The Rails, on the contrary, inhabit only the ſlimy margins of pools and rivers, eſpecially low grounds covered with flags and other large marſh plants. This mode of living is habitual and common to all the ſpecies of water rails. The land rail frequents meadows, and from the diſagreeable cry, or rather rattling in the throat, of this bird, is derived the generic name *. In all the Rails, the body is ſlender, and ſhrunk at the ſides; the tail extremely ſhort; the head ſmall; the bill pretty like that of the gallinaceous kind, though much longer, and not ſo thick; a portion of the leg above the knee is bare; the three fore toes without membranes, and very long: they do not, like other birds, draw their feet under their belly in flying, but allow them to hang down; their wings are ſmall and very concave, and their flight is ſhort.

* *Râler*, in French, ſignifies *to rattle in one's throat.*

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THE WATER RAIL.

The LAND RAIL.

Le Rale de Terre, *ou* Genet. *Buff.*

FIRST SPECIES.

Rallus-Crex. Linn. and Gmel.
Gallinula-Crex. Lath. Ind.
Ortygometra. Geſner, Aldrov. Will. Johnſt. &c. *
Crex. Geſner, Aldrov. Charleton, &c.
Rallus Geniſtarum. Briſſ.
Rallus Terreſtris. Klein.
The Land Hen. Will.
The Daker Hen, or Rail. Alb.
The Corn Crek. Sibb. Scot.
The Corn Craker. Martin's Weſt. Iſles.
The Crake Gallinule. Lath. Syn.

In wet meadows, from the time the graſs is grown till it be cut down, there iſſues from the thickeſt part of the herbage a raucous voice, or rather a broken, harſh cry, *crĕk, crĕk, crĕk,* much like the noiſe made by ſtripping forcibly the teeth of a large comb under the fingers: as we approach the ſound retires, and is heard at a

* It is denominated in Greek, Italian, French and German, *the mother or king of the Quails,* Ορτυγομητρα, *Re delle Quaglie, Roi des Cailles, Wachtel Koenig:* in German it is alſo named, from its cry, *Schryck, Schrye:* in Sileſia *Snercker:* in Poland *Chroſciel, Denkacz, Kaſper:* in Sweden *Korn Knarren;* and in the province of Upland *Aengſnaerpa:* in Norwegian *Akerrire, Ager-bone.* This bird lurks frequently in broom, and hence the name it ſometimes has in French, *Genet,* and the appellation which Briſſon gives it, *Rallus Geniſtarum.*

remove

remove of fifty paces. It is the Land Rail that emits this cry, which might be taken for the croaking of a reptile *. This bird ſeldom eſcapes by flight, but almoſt always walks nimbly through the thickeſt graſs, where it leaves a remarkable track. It begins to be heard about the 10th or 12th of May, at the ſame time with the quails, which it ſeems ever to accompany †. Hence, as the quails too inhabit meadows, and as the Land Rail is leſs common, and rather larger, it has been ſuppoſed to be their leader ‡, and therefore called the *king of the quails*. But it differs from theſe in the characters of its conformation, which are common to the other rails, and in general to the marſh birds §, as Ariſtotle has well obſerved ||. The chief reſemblance which this rail bears to the quail conſiſts in its plumage, which however is browner and more golden; fulvous predominates on the wings; blackiſh and ruſty form the colours of the body; theſe are diſpoſed on the flanks by tranſverſe lines, and are all paler in the female, which is rather ſmaller alſo than the male.

A gratuitous extenſion of the imaginary analogy between the Land Rail and the quail has likewiſe impreſſed the notion of an equal fecun-

* Longolius, *apud Geſnerum*.

† They arrive and retire together, according to Longolius.

‡ Ariſtotle, *Hiſt. Animal.* lib. viii. 12.

§ Klein.

|| Lib. viii. 2.

dity.

dity. But, from repeated obſervations, we are aſſured, that it ſeldom lays eight or ten eggs, never eighteen or twenty, as ſuppoſed: indeed, were we to admit ſuch multiplication, the ſpecies would be more numerous, conſidering how well the neſt is concealed. This neſt is negligently conſtructed with a little moſs or dry graſs, and placed uſually in ſome ſmall hollow in the turf: the eggs, larger than thoſe of the quail, are ſprinkled with broader reddiſh ſpots. The young crakes run as ſoon as they burſt the ſhell, following their mother, but quit not the meadow till the ſcythe ſweeps away their habitation. The late hatches are plundered by the hands of the mower. All the other broods then ſhelter themſelves in the fields of buckwheat, among oats, and in waſte grounds overſpread with broom, where they are found often in ſummer: a few return again to the meadows about the end of that ſeaſon.

We may know when a dog lights on the ſcent of the Land Rail, from his keen ſearch, his number of falſe tracks, and the obſtinacy with which the bird perſiſts in keeping the ground, inſomuch that it may be ſometimes caught by the hand: it often ſtops ſhort, and ſquats down; the dog puſhing eagerly forward, overſhoots the ſpot, and loſes the trace; the Rail, it is ſaid, profits by his blunder, and runs back on its path; nor does it ſpring till driven to the laſt extremity, and then it riſes to a good height before

it

it ſtretches onwards. It flies heavily, and never to a great diſtance. It is uſually ſeen to alight, but in vain ſhould we ſearch for it; before the fowler has reached the ſpot, the bird has tripped off more than an hundred paces. The fleetneſs of its feet compenſates for the tardineſs of its wings: all its little excurſions, its windings, and its doublings in the fields and meadows, are performed by running. When about however to retire into other countries, it feels, like the quail, unuſual vigour, which fits it for performing the diſtant journey *. It commences its flight during the night, and aided by a favourable wind it advances into the ſouth of France, where it attempts the paſſage of the Mediterranean. Many periſh, no doubt, in theſe migrations, and it is remarked that their numbers are fewer on their return.

The Land Rail is never ſeen in the ſouth of France but in its paſſage: it does not breed in Provence †. Belon ſays, that it is rare in Candia, though pretty common in Greece and Italy: it is found therefore in that iſland only in its tranſits of ſpring and autumn. The migrations of this bird extend more to the north than to

* I aſked the Tatares how this bird, not being able to fly, could retire in winter: they told me that the Tatares and the Aſſanians knew well that it could not of itſelf paſs into another country; but that when the cranes retire in autumn, each takes a rail upon its back, and conveys it to a warmer climate.

Gmelin, Voyage en Siberie, tom. ii. *p.* 115.

† *Memoirs communicated by the Marquis de Piolene.*

the

the ſouth; and, notwithſtanding the ſlowneſs of its flight, it penetrates into Poland *, Sweden †, Denmark, and even Norway ‡. It is ſaid to be rare in England §, and found only in ſome particular diſtricts, though common in Ireland ‖. Its motions ſeem to obſerve the ſame order in Aſia as in Europe; and in Kamtſchatka the month of May is likewiſe the term of their arrival ¶.

The Land Rail repairs to the northern countries as much for the ſake of cool ſituations, as to obtain its proper food; ſince, though it eats ſeeds, eſpecially thoſe of broom, trefoil, gromwell, and fattens in the cage on millet and grain **, it prefers inſects, ſlugs, worms; and theſe, which are neceſſary for its young, can be found only in ſhady wet grounds ††. But when grown up, every ſort of aliment ſuits it: it becomes fat, and its fleſh exquiſite. It is caught, like the quail, by a net, into which it is decoyed by an imitation of its cry, *crĕk, crĕk, crĕk*, by

* Rzyczyſki.

† Linnæus.

‡ Muller, Brunnich.

§ Turner ſays, that he never ſaw or heard it anywhere but in Northumberland: yet Dr. Tancred Robinſon avers that it is found alſo in the northern part of Great Britain; and Sir Robert Sibbald reckons it among the birds of Scotland.

‖ Willughby and Ray.

¶ In the Kamtſchadale language, the month of May is called *Tava Koatch*, which ſignifies the month of quails.

** Aldrovandus.

†† Willughby, Schwenckfeld, Linnæus.

rubbing

rubbing hard the blade of a knife on an indented bone *.

Moſt of the names given in different languages to this bird are evidently formed to imitate this ſingular cry †. Hence Turner, and ſome other naturaliſts, have ſuppoſed it to be *crex* of the ancients. But that term appears to have been applied by the ancients to other birds. Philus gives the *crex* the epithet of βραδυπτερος, or *ſluggiſh-winged*, which would indeed ſuit the Land Rail. Ariſtophanes repreſents it as migrating from Libya: Ariſtotle ſays, that it is *quarrelſome*, which may have been attributed to it from the analogy to the quail; but he adds, that the *crex* ſeeks to deſtroy the neſts of the black-bird ‡, which cannot apply to the rail, ſince it never inhabits the woods. Still leſs is the *crex* of Herodotus a rail, for he compares its ſize to that of the ibis, which is ten times larger §. The avoſet, too, and the teal, have ſometimes the cry *crex, crex*: and the bird which Belon heard repeating that cry on the banks of the Nile, is, according to his account, a ſpecies of godwit. Thus the ſound repreſented by the word *crex*, belonging to ſeveral ſpecies, is not ſufficiently preciſe to diſtinguiſh the Land Rail.

* Longolius.

† *Schryck, Scherck, Korn-Knaerr, Corn-Crek, &c.*

‡ Lib. ix. 1.

§ See the Article of the *Ibis*.

[A] Specific

[A] Specific character of the Land Rail, *Rallus-Crex*: "Its "wings are rufous ferruginous." This bird leaves our island in winter: on its first arrival it weighs only six ounces, but fattens so much during its stay as to weigh eight ounces before it retires. The Land Rails appear numerous in the isle of Anglesea, about the end of May, and are supposed to pass from thence into Ireland, where the humid face of the country is so congenial to their nature.

The WATER RAIL.

SECOND SPECIES.

Rallus Aquaticus. Linn. Gmel. Briss. &c.
The Water Rail, Bilcock, or Brook Ouzel *. Will.

THE Water Rail runs beside stagnate water as swiftly as the land rail through the fields. It also lurks constantly among the tall herbs and rushes. It never comes out but to cross the water by swimming or running; for it often trips nimbly along the broad leaves of the water-lily which cover pools †. It makes small tracks over the tall grass; and as it always keeps the same paths, it may be easily caught by nooses set in them ‡. Formerly, the sparrow-hawk or falcon § was flown at it; and in that sport the greatest difficulty was to set up the

* In German *Schwartz Wasser Heunle* (black water-hen) *Aesch-heuzlin* (cinereous fowl). Gesner gives it the name *Samet-hunle*, or velvet hen, on account of its soft plumage. At Venice it is called *Forzane* or *Porzana*, which appellation is also bestowed on the water hens. In Denmark it is denominated *Vagtel-Konge*: in Norway *Band-rire*, *Strand-snarre*, *Vand-hone*, *Vand-vagtel*: and in the Feroe islands *Jord-koene*.

† Klein.

‡ Belon.

§ Belon and Gesner.

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THE WATER RAIL.

bird, for it ſtuck to its concealment with the obſtinacy of the land rail. It cauſes the ſame trouble to the ſportſman, raiſes the ſame impatience in the dog, which it miſleads and diſtracts, and protracts as long as poſſible its ſpringing. It is nearly as large as the land rail, but its bill is longer, and reddiſh at the point; its feet are of a dull red: Ray ſays, that in ſome ſpecies theſe are yellow, and that this difference may proceed from the ſex. The belly and ſides are ſtriped acroſs with whitiſh bars on a blackiſh ground: the colours are diſpoſed the ſame as in all the rails: the throat, the breaſt, the ſtomach, are of a fine ſlate-gray: the upper ſurface is of an olive brown rufous.

Water Rails are ſeen near the perennial fountains during the greateſt part of the winter: yet, like the land rails, they have their regular migrations. They paſs Malta in the ſpring and autumn *. The Viſcount de Querhoënt ſaw ſome fifty leagues off the coaſts of Portugal on the 17th of April; they were ſo fatigued that they ſuffered themſelves to be caught by the hand †. Gmelin found theſe birds in the countries watered by the Don. Belon calls them

* Note communicated by M. Deſmazy.

† "I tried," ſays M. de Querhoënt, "to raiſe ſome: they "thrived wonderfully at firſt, but after a fortnight's confinement "their long legs grew paralytic, and the birds could only crawl on "their knees; at laſt they expired." Geſner ſays, that having long fed one, he found it to be peeviſh and quarrelſome.

 black

black rails, and ſays they are *every where known*, and that the ſpecies is more numerous than the *red rail* or land rail.

The fleſh of the Water Rail is not ſo delicate as that of the land rail, and has even a marſhy taſte, nearly like that of the gallinule.

[A] Specific character of the Water Rail: "Its wings are "gray, ſpotted with brown; its flanks ſpotted with white; its bill "fulvous below." It continues the whole year in England.

The MAROUETTE.

THIRD SPECIES.

Rallus-Porzana. Linn. and Gmel.
Gallinula-Porzana. Lath. Ind.
Gallinula Ochra. Geſner.
Porcellana, Porzana, Grugnetto. Aldr.
Rallus Aquaticus Minor, ſive Marouetta. Briſſ.
The Spotted Water-hen. Penn.
The Spotted Gallinule. Lath. Syn.*

THIS is a ſmall water rail, not exceeding a lark in ſize. All the ground of its plumage is olive-brown, ſpotted and clouded with whitiſh, whoſe luſtre gives this dark ſhade an enamelled gloſs; whence it has been called the *pearled rail.* Friſch denominates it improperly the *ſpotted water-hen.* It appears at the ſame ſeaſon with the great water rail: it haunts marſhy pools: it lurks and breeds among the reeds: its neſt is faſhioned after the manner of a gondola, and compoſed of ruſhes interwoven and faſtened at the ends to the ſtalk of a reed; ſo that, like a ſmall boat or cradle, it riſes and

* In Picardy it is called *Girardine,* and in the Milaneſe *Girardina:* in ſome parts of France *Cocouan,* according to Briſſon: in the Bologneſe *Porzana:* and in Alſace *Winkernell,* according to Geſner.

 ſinks

ſinks with the water. It lays ſeven or eight eggs; and the floating young are hatched all black. Their education is ſpeedy; for they run, ſwim, dive, and ſoon ſeparate, each to lead a ſolitary, ſavage life, which prevails even in the ſeaſon of love: ſince, except during actual coition, the male diſcards his female, pays no tender attentions or careſſes, indulges in no frolics or joyous airs, and feels none of thoſe ſoft delights, the ſweet preludes of fruition. Unhappy beings, who never breathe a ſigh to the objects of their paſſion! inſipid loves, whoſe ſole end is to procure poſterity!

Its habits wild, its inſtinct ſtupid, the *Marouette* is unſuſceptible of education, nor is even capable of being tamed. We raiſed one, however, which lived a whole ſummer on crumbs of bread and hemp-ſeed: when by itſelf, it kept conſtantly in a large bowl of water; but if a perſon entered the cloſet where it was ſhut, it ran to conceal itſelf in a ſmall dark corner, without venting cries or murmurs. In the ſtate of liberty, however, it has a ſharp piercing voice, much like the ſcream of a young bird of prey: and though it has no propenſity to ſociety, as ſoon as one cries, another repeats the ſound, which is thus conveyed through all the reſt in the diſtrict.

The *Marouette*, like all the rails, is ſo obſtinately averſe to riſe, that the ſportſman often ſeizes it with his hand, or fells it with a ſtick.

If

If it finds a buſh in its retreat, it climbs upon it, and from the top of its aſylum beholds the dogs bruſhing along in fault: this habit is common to it and to the water rail. It dives, ſwims, and even ſwims under water, when hard puſhed.

Theſe birds diſappear in the depth of winter, but return early in the ſpring; and even in the month of February they are common in ſome provinces of France and Italy. Their fleſh is delicate and much eſteemed; thoſe in particular which are caught in the rice-fields in Piemont are very fat, and of an exquiſite flavour.

[A] Specific character of the *Rallus-Porzana*: "Its two middle "tail-quills are edged with white; its bill and feet ſomewhat "olive."

FOREIGN BIRDS of the ANCIENT CONTINENT,

WHICH ARE RELATED TO THE RAIL.

The TIKLIN, or PHILIPPINE RAIL.

FIRST SPECIES.

Rallus Philippenſis. Linn. Gmel. and Briſſ.

THERE are four different ſpecies known by the name of *Tiklin* in the Philippine iſlands. The preſent is remarkable for the neatneſs and agreeable contraſt of its colours: a gray ſpace covers the fore ſide of the neck; another ſpace of cheſnut rufous covers the upper ſide of it and the head; a white line extends above the eye; all the under ſide of the body is enamelled as it were with little croſs lines, alternately black and white in feſtoons; the upper ſurface is brown, clouded with ruſty, and ſprinkled with ſmall white drops on the ſhoulders and the edge of the wings, of which the quills are intermixed with black, white, and cheſnut. This bird is rather larger than the water rail.

[A] Specific character of the *Rallus Philippenſis*: "It is brown, "below ſtriped with gray; its eye-brows white; its neck tawny "below."

The BROWN TIKLIN.

SECOND SPECIES.

Rallus Fuſcus. Linn. Gmel. and Briſſ.
The Brown Rail. Lath.

THE plumage of this bird is of an uniform dull brown, only waſhed on the throat and breaſt with a purple vinous tint, and broken under the tail by a little black and white on the lower coverts. It is as ſmall as the preceding.

[A] Specific character of the *Rallus Fuſcus*: "It is brown, its "vent waved with white, its feet bright yellow."

The STRIPED TIKLIN.

THIRD SPECIES.

Rallus Striatus. Linn. and Gmel.
Rallus Philippensis Striatus. Briss.

THIS is of the same size with the preceding. The ground of its plumage is fulvous brown, crossed, and, as it were, worked with white lines; the upper part of the head and neck is chesnut-brown: the stomach, the breast, and the neck are olive-gray; and the throat is rusty white.

[A] Specific character of the *Rallus Striatus*: "It is blackish "waved with white, its throat tawny."

The COLLARED TIKLIN.

FOURTH SPECIES.

Rallus Torquatus. Linn. and Gmel.
Rallus Philippensis Torquatus. Briss.
The Banded Rail. Lath.

THIS is rather larger than the land rail. Its upper surface is brown, tinged with dull olive; its cheeks and throat are soot-colour; a white track rises from the corner of the bill, passes under the eye, and extends behind; the fore side of the neck, the breast, the belly, are blackish-brown, striped with white lines; a band of fine chesnut of the breadth of the finger, forms a half collar above the breast.

[A] Specific character of the *Rallus Torquatus*: "It is brown, "below waved with white, a white line below its eyes."

FOREIGN BIRDS of the NEW CONTINENT,

WHICH ARE RELATED TO THE RAIL.

The LONG-BILLED RAIL.

FIRST SPECIES.

Rallus Longiroſtris. Gmel.

THE ſpecies of the rails are more diverſified, and perhaps more numerous, in the deluged and ſwampy grounds of the new, than in the dryer countries of the ancient continent. It appears that two of theſe are ſmaller than the reſt, and that the preſent is, on the contrary, larger than any of the European. Its bill alſo is longer, even than in proportion; its plumage is gray, or a little ruſty on the fore ſide of the body, and mixed with blackiſh or brown on the back and the wings; the belly is ſtriped with white and black croſs bars, as in moſt of the other rails. Two ſpecies, or at leaſt two varieties of theſe birds, are found in Cayenne; and they differ widely in ſize, ſome being as large as a godwit, and others ſcarcely equal to the common water rail.

The KIOLO.

SECOND SPECIES.

Rallus Cayanenſis. Gmel.
The Cayenne Rail. Lath.

THIS is the name by which the natives of Cayenne expreſs the cry or puling of this Rail. It is heard in the evening at the ſame hour with the *tinamous*, that is, at ſix o'clock, the inſtant the ſun ſets in the equatorial climates. Their cry is the ſignal to aſſemble; for in the day-time they lurk diſperſed and ſolitary in the wet buſhes. They make their neſt in the little low branches, and it conſiſts of a ſingle ſort of reddiſh herb; it is raiſed into a ſmall vault to prevent the rain from penetrating. This Rail is rather ſmaller than the *marouette*; the fore ſide of its body and the crown of its head are of a fine rufous, and the upper ſurface is waſhed with olive-green on a brown ground. We conceive that Edwards's Penſylvanian rail is the ſame with this *.

* *Rallus Virginianus.* Linn. and Gmel.
Rallus Aquaticus, var. 1. Lath.
Rallus Penſylvanicus. Briſſ.
The American Water-Rail. Edw.
The Virginian Rail. Penn.

"Above it is brown, below tawny-brown; its tail-quills brown; "its eye-brows and its throat white." *Latham.*

The SPOTTED RAIL of CAYENNE.

THIRD SPECIES.

Rallus Variegatus. Gmel.
The Variegated Rail. Lath.

THIS handſome Rail, which is one of the largeſt, has brown-rufous wings; the reſt of the plumage ſpotted, ſtreaked and edged with white, on a jet ground. It is found, too, in Guiana.

The VIRGINIAN RAIL.

FOURTH SPECIES.

Rallus Carolinus. Linn. and Gmel.
Gallinula Carolina. Lath. Ind.
Rallus Terreſtris Americanus. Klein.
Rallus Virginianus. Briſſ.
The Little American Water-Hen. Edw.
The American Rail, or Soree. Cateſby.
The Soree Gallinule. Lath. Syn.

THIS bird, which is of the bulk of the quail, is more a-kin to the land-rail than to the water-hens. It appears to be found through the whole extent of North America, as far as Hudſon's Bay, though Cateſby ſays, that he ſaw it only in Virginia: its plumage, he tells us, is entirely brown. He adds, that theſe birds grow fat in autumn, that the ſavages take them by ſpeed of foot, and that they are as much prized in Virginia, as the rice-birds in Carolina, or the ortolans in Europe.

[A] Specific character of the *Rallus Carolinus*: " It is brown, " its bridle black, its breaſt lead-coloured, its bill bright yellow, " its feet greeniſh."

The JAMAICA RAIL.

LE RALE BIDI-BIDI. *Buff.*

FIFTH SPECIES.

Rallus Jamaicenſis. Gmel. and Briſſ.
The leaſt Water-hen. Edw. and Brown.

BIDY-BIDY is the cry of this Jamaican Rail: it ſcarcely ſurpaſſes a petty-chaps. Its head is entirely black; the upper ſide of the neck, the back, the belly, the tail, and the wings, are brown, variegated with whitiſh croſs rays on the back, the rump, and the belly; the feathers of the wing and thoſe of the tail are ſprinkled with white drops; the fore ſide of the neck and the ſtomach are blueiſh cinereous.

The LITTLE CAYENNE RAIL.

SIXTH SPECIES.

Rallus Minutus. Gmel.
The Little Rail. Lath.

THIS pretty little bird exceeds not the petty-chaps: the fore ſide of the neck and breaſt are white, lightly tinged with fulvous and yellowiſh; the flanks and the tail are ſtriped tranſverſely with white and black; the ground of the feathers on the upper ſurface is black, variegated on the back with white ſpots and lines, and fringed with ruſty colour. It is the leaſt of the genus.

THE Rails ſeem to be ſtill more diffuſed than varied: and nature has produced or tranſported them over the moſt diſtant lands. Captain Cook found them at the Straits of Magellan; in different iſlands of the ſouthern hemiſphere, at Anamoka, at Tanna, and at the iſle of Norfolk. In the Society Iſlands there are two ſpecies of Rails; a little black ſpotted one, *(pooa-née)* and a little

a little red-eyed one *(mai-ho)*. It appears that the two *acolins* of Fernandez, which he denominates *water-quails* *, are of a ſpecies of Rails peculiar to the great lake of Mexico. The *colins*, which might be confounded with theſe, are a kind of partridges.

* *Hiſt. Avi. Nov. Hiſp.* cap. x. p. 16. "Acolin or water-" quail. As large as a ſtare . . . the under ſide of its body bright " white, its ſides ſpotted with fulvous; its upper ſide fulvous, di-" vided by blackiſh ſpots and bright white lines, encompaſſing four " quills."

No. 206

THE CAURAL SNIPE.

The CAURALE.

Ardea-Helias *. Gmel. and Pallas.
Scolopax-Helias. Lath. Ind.
The Caurale Snipe. Lath. Syn.

If we attended only to the ſhape of the bill and feet, we ſhould reckon this bird a rail; but its tail is much longer, and we have therefore adopted a compound name, expreſſive of this character, *Caurâle* or *Queue Râle* (tail-rail). Its plumage is rich, though the colours are dark: to form an idea of it, we may compare it to the wings of thoſe fine ſhining flies, in which black, brown, rufous, fulvous, and light gray, intermingled in zones and zig-zags, compoſe a ſoft enchanting mixture. Such particularly is the plumage of the wings and tail; the head is hooded with black, and there are long white lines above and below the eye; the bill is exactly that of the rail, except that it is rather longer; and the head, the neck, and the body are alſo longer than in the rail; the tail is five inches, and projects two beyond the wings; the foot is thick, twenty-ſix lines high, and the naked

* In Cayenne it is called *petit Paon des roſes* (little peacock of the roſes.)

naked part of the leg ten: the rudiment of a membrane is broader and more apparent than in the rail. The total length, from the point of the bill, which is twenty-ſeven lines, to that of the tail, is fifteen inches.

This bird has not hitherto been deſcribed, and was but lately diſcovered. It is found, though rarely, in the interior parts of Guiana, where it inhabits the ſides of rivers: it lives ſolitary, and makes a ſlow plaintive whiſtle, which is imitated to decoy it.

N.o 207

THE COMMON GALLINULE.

The WATER HEN.

LA POULE D'EAU. *Buff.*

Fulica-Chloropus. Linn. and Gmel.
Gallinula Chloropus Major. Aldrov. Johnſt. Sibb. &c.
Gallinula-Chloropus. Lath. Ind.
Gallinula. Briſſ.
The Common Water Hen, or Moor Hen. Will. Penn. &c.
The Common Gallinule. Lath. Syn. *

NATURE paſſes by gradations from the ſhape of the rail to that of the Water Hen, whoſe body is alſo compreſſed at the ſides, its bill of a ſimilar form but ſhorter, and in this reſpect liker that of the gallinaceous tribe: its head too is bare, and covered with a thick membrane; a character of which veſtiges may be found in certain ſpecies of rails †. It flies likewiſe with its feet hanging down: its toes are extended in the ſame manner as thoſe of the rails, but are furniſhed their whole length with a membranous edging; and this is the intermediate ſhade between the birds with cloven feet and thoſe with webbed feet.

The habits of the Water Hen correſpond to

* In German *Rohtblaſchen*: in Poliſh *Kokoſka.*
† Willughby.

its

its conformation: it is oftener in the water than the rail, though it does not ſwim much, but only croſſes from one ſide to another. It lurks the greateſt part of the day among the reeds, or under the roots of alders, willows, and oziers, and leaves not its retreat until evening: it frequents leſs the marſhes and bogs than the rivers and pools. Its neſt is placed cloſe to the brink of the water, and conſtructed with a large heap of broken reeds and ruſhes interwoven. The mother quits her neſt every evening, having previouſly covered the eggs with herbs and ruſhes. The young run as ſoon as they are hatched, like thoſe of the rail, and in the ſame way are led by their dam to the water: and, no doubt, it is for this reaſon that the parents, conſulting future convenience, always build their neſt ſo near the ſurface. So well is the little family conducted and concealed, that it is difficult to rob it during the very ſhort term of its education *: for the young ones are ſoon able to ſhift for themſelves, and leave their prolific mother ſufficient time to rear a ſecond brood. It is even averred that they often have three hatches a year †.

The Water Hens quit the cold hilly parts in

* "The Water Hens conceal their young ſo well, that I have "never ſeen them, though I have fowled much in marſhes at all "ſeaſons." *Note of M. Hebert.*

† Willughby.

October,

October *, and ſpend the whole winter in our temperate provinces, where they are found near fountains and uncongealed freſh waters †. Thus it can ſcarcely be reckoned a bird of paſſage, ſince it remains the whole year in ſeveral countries, and only flits between the mountains and the plains.

But though the Water Hen is not migratory, and is every where ſcarce, it has been planted by nature in moſt of the known regions, even the remoteſt. Captain Cook found it in the iſle of Norfolk ‡, and in New Zealand §: Adanſon, in an inlet at Senegal: Gmelin, in the plain of Mangaſea in Siberia, near the Jeniſea, where the ſpecies is very numerous. Nor are theſe birds leſs common in the Antilles, at Guadeloupe ‖, at Jamaica ¶, and in the iſle of *Aves*, though it contains no freſh water: many are

* Obſervations made in the Lorraine Voſges, by M. Lottinger.

† Obſervations made in Brie, by M. Hebert.

‡ Second Voyage, *vol.* ii.

§ "The water or wood hens, though numerous enough here, "are ſo ſcarce in other parts, that I never ſaw but one. The reaſon may be, that, as they cannot fly, they inhabit the ſkirts of "the woods, and feed on the ſea-beach; and are ſo very tame or "fooliſh as to ſtand and ſtare at us till we knocked them down with "a ſtick. The natives may have, in a manner, wholly deſtroyed "them. They are a ſort of rail, about the ſize and a good deal "like a common dunghill hen; moſt of them are of a dirty or dark "brown colour, and eat very well in a pye or fricaſſée."—*Cook's ſecond Voyage,* vol. i. p. 97.

‖ Dutertre, *tom.* ii. *p.* 277.

¶ Sloane, Browne.

found alſo in Canada *. And in Europe they inhabit England, Scotland †, Pruſſia ‡, Switzerland, Germany, and moſt of the provinces of France. It is true that we are not certain whether all thoſe mentioned by travellers are of the ſame ſpecies with ours. Le Page du Pratz expreſsly ſays, that the Water Hen of Louiſiana is the ſame with that of France §; and it appears that the one deſcribed by Father Feuillée at the iſland St. Thomas is nothing different ‖. We may diſcriminate, however, three ſpecies or varieties of Water Hens, which never, we are aſſured, contract affinity with each other, though they haunt the ſame pools. Thoſe found in Europe are diſtinguiſhed by their ſize, and the middle ones are the moſt common: they are about the bulk of a pullet ſix months old; the length from the bill to the tail is a foot, and from the bill to the nails fourteen or fifteen inches; the bill is yellow at the point, and red at the baſe; the membranous ſpace on the front is alſo red, and ſo is the lower part of the thigh above the knee; the feet are greeniſh; all the plumage is of a dull iron gray, clouded with white under the body, and greeniſh brown gray above; a white line borders the wing; the tail,

* Hiſt. Gen. des Voy. *tom.* xv. *p.* 227.

† Rzaczynſki.

‡ Geſner.

§ Hiſtoire de la Louiſiane, *tom.* ii. *p.* 117.

‖ Journal d'Obſervations (*edit.* 1725.) *p.* 393.

when

when raiſed, ſhows white on the lateral feathers of the inferior coverts;—the plumage is thick, compact, and clothed with down. In the female, which is rather ſmaller, the colours are lighter, the white waves on the belly are more diſtinct, and the throat is white: the ſpace on the forehead is, in young ſubjects, covered with a down more like hair than feathers. A young Water Hen, which we opened, had in its ſtomach portions of ſmall fiſh and aquatic plants mixed with gravel: the gizzard was very thick and muſcular, like that of the domeſtic hen: the bone of the *ſternum* appeared to us much ſmaller than uſual in birds; and if this difference was not owing to the age, it would partly confirm the aſſertion of Belon, that the *ſternum* and *iſchium* are of a different ſhape in the Water Hen from the ſame bones in other birds.

[A] Specific character of the Water Hen, *Fulica Chloropus*: "Its front is fulvous, its bracelets * red, its body blackiſh." Linnæus ſays, that it has two hatches annually, and lays ſeven eggs about two inches long, of an ochry white colour, with a few ſcarlet ſpots.

* *i. e.* the coloured rings above the knees.

The LITTLE WATER-HEN.

LA POULETTE D'EAU. *Buff.*

Fulica Fuſca. Linn. and Gmel.
Gallinula Fuſca. Lath. Ind.
Gallinula Minor. Briſſ.
The Brown Gallinule. Lath. Syn.

THOUGH Belon has applied to this bird the diminutive *poulette*, it is not much ſmaller than the preceding. Its colours are nearly the ſame; only that naturaliſt remarks, that it has a blueiſh tint on the breaſt, and that its eye-lid is white; he adds, that its fleſh is very tender, and that its bones are thin and brittle. We had one of theſe birds which lived only from the 22d of November to the 10th of December: water indeed was its only ſupport: it was ſhut in a narrow corner, and taken out every day by two panes which opened in the door; at earlieſt dawn it repeatedly darted at theſe glaſſes: during the reſt of its time it concealed itſelf as much as poſſible, holding down its head: if taken in the hand, it pecked with its bill, but feebly. In this rigorous confinement it was never heard to utter a ſingle cry. Theſe birds are in general very taciturn; they are even ſaid to be dumb, but when at liberty, they have a ſlender call—*bri, bri, bri.*

[A] Specific character of the Brown Gallinule, *Fulica Fuſca:* "Its front is yellowiſh, its bracelets of the ſame colour, its body "duſkiſh."

The PORZANA, or the GREAT WATER-HEN.

Fulica Fuſca, var. Gmel.
Gallinula Major. Briſſ.
Rallus Italorum. Johnſt. Ray. Will. &c.

THIS bird is very common in Italy, in the neighbourhood of Bologna, where the fowlers call it *Porzana*. Its length from the bill to the tail is near a foot and a half; the upper ſide of the bill is yellowiſh, and the point blackiſh; the neck and head are alſo blackiſh; the upper ſurface is cheſnut-brown; the reſt of the plumage is the ſame with that of the common water hen, with which we are aſſured it is ſometimes found in our pools: the colours of the female are paler than thoſe of the male.

The GRINETTA.

Fulica Nævia. Gmel.
Gallinula Fulica. Lath. Ind.
Porphyrio Nævius. Briſſ.
Poliopus. Aldrov. Geſner, and Ray.
The Small Water Hen. Albin.
The Grinetta Gallinule. Lath. Syn.

ACCORDING to Willughby, this bird is ſmaller than the rail, and its bill is very ſhort. If we may judge from its different names, it muſt be well known in the Milaneſe *. It is found alſo in Germany, according to Geſner: that naturaliſt ſays nothing more than that its feet are gray, its bill partly red, partly black, the upper ſurface rufous brown, and the under ſide of the body white.

* At Milan, ſays Aldrovandus, it is called *Grugnetta*; at Mantua *Porzana*; at Bologna *Porcellana*; and elſewhere *Guardella Columba*: at Florence it is denominated *Tordo Gelſemino*, according to Willughby.

The SMIRRING.

Fulica Flavipes. Gmel.
Gallinula Flavipes. Lath. Ind.
Porphyrio Rufus. Briſſ.
Gallinula Ochropus Major. Ray and Will.
The Yellow-legged Gallinule. Lath. Syn.

THE name *Smirring*, which Geſner ſuppoſes to have been given in imitation of the call, is in Germany the appellation of a bird which appears akin to the water hens. Rzacynſki, mentioning it as a native of Poland, ſays, that it haunts the rivers, and neſtles among the buſhes which grow on their banks: he adds, that the ſwiftneſs with which it runs made him ſometimes term it *trochilus*. In another place, he deſcribes it like Geſner: "The ground of its "plumage is rufous; the ſmall feathers of the "wing are brick-colour; the great quills of the "wing are black; ſpots of the ſame are ſprink-"led on the neck, the back, the wings, and the "tail; the feet and the baſe of the bill are yel-"lowiſh."

The GLOUT.

Fulica Fiſtulans. Gmel.
Gallinula Fiſtulans. Lath. Ind.
Porphyrio Fuſcus. Briſſ.
The Piping Gallinule. Lath. Syn.

THIS is a water hen, according to Geſner. He ſays that it has a ſhrill high voice like the tone of a fife: it is brown, with a little white on the point of the wings: it is white round the eyes, at the neck, on the breaſt and the belly; its feet are greeniſh, and its bill is black.

FOREIGN BIRDS,

WHICH ARE RELATED TO THE WATER-HEN.

The GREAT WATER-HEN of CAYENNE.

Fulica Cayenenſis. Gmel.
The Cayenne Gallinule. Lath.

THIS bird approaches the heron by the length of its neck, and removes from the water-hen by the length of its bill. It is the largeſt of the genus, being eighteen inches long: the neck and the head, the tail, the lower belly, and the thighs, are brown gray; the upper ſurface is dull olive; the ſtomach and the quills of the wings are rufous inclined to reddiſh. It is very common in the ſwamps of Guiana, and is ſeen even in the ditches of the town of Cayenne: it lives on ſmall fiſh and aquatic inſects: when young its plumage is entirely gray, which becomes reddiſh after moulting.

The MITTEK.

THE accounts of Greenland mention this bird as a water hen, but it may be ſome ſpecies of diver or grebe. In the male, the back and neck are white; the belly black, and the head verging on violet. In the female, the plumage is yellow, mixed and edged with black, ſo as to appear gray at a diſtance. Theſe birds are very numerous in Greenland, eſpecially in winter: they are ſeen flying in the morning from the bays to the iſlets, where they ſubſiſt on ſhell-fiſh; and in the evening they return to their retreats, where they paſs the night. They follow the windings of the coaſt in their flight, and the ſinuoſities of the ſtraits between the iſlets. They ſeldom fly over land, unleſs the force of the wind, particularly when it blows from the north, confines their excurſions. The ſportſmen ſeize this opportunity to fire at them from ſome promontory; thoſe that are killed are picked up by a canoe, for ſuch as are wounded go to the bottom, and never more appear *.

* Hiſtoire Generale des Voyages, *tom.* xix. p. 44.

The KINGALIK.

THIS is alſo a native of Greenland, and ſaid to be a water-hen. It is larger than the duck, and remarkable for the indented protuberance which grows on the bill between the noſtrils, and which is of an orange yellow. The male is entirely black, except that its wings are white, and its back mottled with white: the female is brown.

THESE are all the foreign ſpecies which we can refer to the water-hens; for thoſe termed *clucking hens* by Dampier are, according to his own account, akin to the herons *. Alſo the beautiful water-hen of Buenos-Ayres, deſcribed by Father Feuillée, is really of a different kind, ſince *its feet are like a duck's.*

* " The clucking hens reſemble much the crab-eaters, but their " legs are not quite ſo long; they keep conſtantly in the wet marſhy " places, though their foot is formed like that of land birds: they " uſually cluck like a hen with her chickens, for which reaſon the " Engliſh call them *clucking hens.* There are many of them in the " bay of Campeachy, and in other parts of the Weſt Indies . . . The " crab-eaters, the clucking hens, and the goldens, with regard to " figure and colour, reſemble our Engliſh herons, but are ſmaller." *Dampier's Voyage round the World.*

Laſtly, the *Barbary water-hen*, with ſpotted wings, of Dr. Shaw, *which is leſs than a plover*, appears to us more related to the rails, than to the water-hens *.

* *Rallus Barbaricus.* Gmel.
The Barbary Rail. Lath.

No. 208

THE CHESNUT JACANA.

The JACANA.

FIRST SPECIES.

Parra-Jacana. Linn. and Gmel.
Jacana Armata Fuſca. Briſſ.
Anſer Chilenſis. Charleton.
The Spur-winged Water-Hen. Edw.
The Cheſnut Jacana. Lath.

"THE Jacana of the Brazilians," ſays Marcgrave, "muſt be ranged with the water-hens, which it reſembles in its inſtincts, "in its habits, in the round ſhape of its body, "in the form of its bill, and in the ſmallneſs of "its head." Yet it appears to us to differ eſſentially from theſe birds by ſingular and even peculiar characters: it has ſpurs on the ſhoulders, and ſhreds of membranes on the fore ſide of the head; its toes and nails are extremely long; the hind-toe is as long as the fore-toe; all the nails are ſtraight, round, and drawn out like needles; and from this circumſtance probably it received at St. Domingo the appellation of *Surgeon*. The ſpecies is common in all the marſhes of Brazil; and we are aſſured that it occurs alſo in Guiana and St. Domingo. We may preſume that it is likewiſe found in all the tropical

tropical parts of America, both on the continent and in the iſlands, as far as New Spain; though Fernandez ſeems to ſpeak of it only from report, ſince he makes it come from the north, whereas it is really a native of the ſouth.

We know four or five Jacanas, which are of the ſame bulk, and differ only in colour. The firſt ſpecies given by Fernandez is the fourth of Marcgrave. The head, the neck, and the foreſide of the body of this bird, are black tinged with violet; the great quills of the wing are greeniſh; the reſt of the upper ſurface is fine cheſnut, with a purpliſh or ferruginous caſt: each wing is armed with a pointed ſpur inſerted in the ſhoulder, exactly like the ſpines of the criſped ray-fiſh; a membrane, taking its origin at the root of the bill, ſpreads on the front, and divides into three portions, leaving alſo a barbel on each ſide; the bill is ſtraight, inflated ſomewhat at the point, and of a fine yellow jonquil, like the ſpurs; the tail is very ſhort, and this character, as well as the form of the bill, the tail, the toes, and the height of the legs, of which the half is covered with feathers, belongs equally to all the ſpecies of Jacanas. Marcgrave ſeems to exaggerate, when he compares their bulk to that of a pigeon; for their body is not larger than the quail, only their legs are much taller; their neck is alſo longer, and their head ſmaller:

ſmaller: they are always very lean; yet it is ſaid their fleſh is palatable.

The firſt ſpecies of Jacana is pretty common at St. Domingo, whence it was ſent us by M. Lefebure Deſhayes, under the appellation of *Chevalier mordoré armé* *.

" Theſe birds," he ſays, " go commonly in " pairs, and when ſeparated by ſome accident " they call each other: they are very wild, and " the ſportſman cannot approach them but by " wiles, covering himſelf with leaves, or running " behind the buſhes or the reeds. They are " ſeen regularly in St. Domingo during the " rainy months of May and November, or " ſhortly after: yet a few are ſeen at other " times, which would ſhew that the places of " their habitual abode are not very remote. " But they are never found except in marſhes, " or at the ſides of pools and brooks.

" The flight of theſe birds is not lofty, but " pretty rapid: in riſing they vent a ſhrill, " ſqueaking cry, which is heard far, and ſeems " to bear ſome reſemblance to that of the white " owl. The poultry are alarmed, taking it for " the ſcream of a bird of prey, though the " Jacana is very remote from that tribe. Na- " ture we might ſuppoſe has armed it for war, " yet we know not any foe which it combats."

This analogy to the armed lapwings, which are quarrelſome and noiſy birds, and have a

* *i. e.* The armed ferruginous horſeman.

ſimilar form of bill, ſeems to have induced ſome naturaliſts to claſs them together *. But they differ in the ſhape of their body and of their head, and in ſo far reſemble the water-hen, from which, however, they are diſtinguiſhed by the peculiar conformation of their feet. The Jacanas may therefore be reckoned a ſeparate genus, appropriated to the new continent. Their abode, and their ſtructure, ſufficiently ſhew that they live and feed after the manner of the other ſhore-birds. And though Fernandez ſays that they frequent only the ſalt baſons near ſea-mark, it appears from the above quotation that they occur in the interior parts of the country, on the verge of freſh waters.

* Adanſon. See the Supplement of the Encyclopedie, article *Aguapeca*.

[A] Specific character of the Cheſnut Jacana, *Parra-Jacana*: "Its hind nails very long, and its feet greeniſh."

The BLACK JACANA.

SECOND SPECIES.

Parra Nigra. Gmel.
Jacana Armata Nigra. Briff.

ALL the head, the neck, the back, and the tail, are black; the top of the wings and their points are brown, the reft is green, and the under fide of the body is brown; the fpurs of the wing are yellow, and fo is the bill, from the root of which a reddifh membrane rifes over the front. Marcgrave gives this fpecies for a native of Brazil.

The GREEN JACANA.

THIRD SPECIES.

Parra Viridis. Gmel.
Jacana. Pison. Johnst. and Briss.

MARCGRAVE extols the beauty of this bird, which he reckons the first species of its genus: its back, its wings, and its tail, are tinged with green on a black ground, and the neck glistens like that of a pigeon: the head is invested with a membrane of Turkey blue: the bill and the nails are vermilion in their first half, and yellow at the point. The analogy leads us to suppose that this species is armed as well as the rest, though Marcgrave does not express it.

The JACANA-PEÇA.

FOURTH SPECIES.

Parra Brasilienſis. Gmel.
Jacana Armata. Briſſ.
Aguapecaca. Marcg. Johnſt. Ray, Will. &c.
The Braſilian Jacana. Lath.

THE Brazilians call this bird *Agua-pecaca:* we term it *Jacana-Peca*, to ſuggeſt both its genus and its ſpecies. It differs little from the preceding: "Its colours," ſays Marcgrave, "are more dilute, and its wings browner; each "wing is armed with a ſpur, which ſerves as a "weapon of defence; but its head is not co-"vered with membrane." The name *Porphyrion*, which Barrere has given to this bird, ſeems intended to denote its red feet. The ſame author ſays that it is common in Guiana, where the Indians call it *Kapoua*; and we apprehend that the following note of M. De la Borde refers to it. "The little ſpecies of water-hen, or *ſurgeon*, with armed wings, is very common in "Guiana, where it inhabits the pools of freſh "water and the meres: it is uſually ſeen in "pairs, though ſometimes twenty or thirty "flock together. There are always ſome in "ſummer

"summer in the ditches round the town of "Cayenne; and in the rainy season they appear "even in the open parts of the new town: "they lurk among the rushes, and live on fish "and water insects." It would seem that in Guiana, as well as in Brazil, there are several species or varieties of these birds, which are known under different names. Aublet informs us, that the surgeon-bird is pretty common in Guiana, in the meres, the basons, and the plashes of the savannas; that it sits on the broad leaves of the water-lily; and that the natives give it the appellation of *kinkin*, expressive of its shrill note.

The VARIEGATED JACANA.

FIFTH SPECIES.

Parra Variabilis. Gmel.
Rallus digitis triuncialibus. Klein.
Fulica Spinoſa. Linn.
Jacana Armata Varia. Briſſ.
The Variable Jacana. Lath.

THIS Jacana has the ſame predominant colours with the others, but more varied: it is greeniſh, black, and purple cheſnut: on each ſide of the head there is a white bar, which paſſes above the eyes: the fore ſide of the neck is white, and alſo the whole of the under ſide of the body: the front is covered with an orange-red membrane, and it has ſpurs on the wing. This bird was ſent to us from Brazil: Edwards repreſents one brought from Carthagena; which confirms our remark, that the Jacanas are common to different parts of America, ſituated between the tropics.

The SULTANA HEN, or PORPHYRION.*

Fulica-Porphyrio. Linn. and Gmel.
Gallinula-Porphyrio. Lath. Ind.
Porphyrio. Geſner. Aldrov. Johnſt. Will. &c.
The Purple Water-hen. Edw. and Alb.
The Purple Gallinule. Lath. Syn.

THE moderns have given the name of *Sultana Hen* to a bird famous among the ancients, under the name of *Porphyrion*. We have frequently had occaſion to remark the juſtneſs of the denominations beſtowed by the Greeks, which generally allude to the diſtinctive characters, and are therefore ſuperior to the terms haſtily adopted in our languages from ſuperficial or inaccurate views. The preſent is an inſtance. As this bird ſeemed to bear ſome reſemblance to the gallinaceous tribe, it got the name of *hen*; but as, at the ſame time, it differed widely, and excelled by its beauty and port, it received the epithet of *Sultana*. But the term *Porphyrion*, indicating the red or purple tint of its bill and feet, was more juſt and characteriſtic: and ſhould we not rebuild the fine ruins

* In Greek Πορφυριον, on account of its purple bill and feet. The Romans adopted this name.

of

No. 209

THE PURPLE GALLINULE.

of learned antiquity, and reſtore to nature thoſe brilliant images and thoſe faithful portraits from the delicate pencil of the Greeks, ever awake to her beauties and her animation?

Let us therefore give the hiſtory of the Porphyrion, before we ſpeak of the Sultana Hen. Ariſtotle, in Athenæus *, deſcribes the Porphyrion to be a bird with long legs and pinnated feet, the plumage blue, the bill purple, and firmly fixed to the front, and its bulk equal to that of a domeſtic cock. According to the reading of Athenæus, Ariſtotle ſubjoined that it had five toes; which would have been erroneous, though ſome other ancient authors have alledged it. But among the moderns, Iſidorus has fallen into a much greater error, which has been copied by Albertus, who ſays that one of its feet is webbed and calculated for ſwimming, and that the other is fitted for running like the land birds: which is equally falſe and abſurd, and muſt mean nothing more than that the Porphyrion is a ſhore bird, and lives on the confines of the land and water. It appears, indeed, to be amphibious; for, in the domeſtic ſtate, it eats fruits, fleſh, and fiſh: its ſtomach has the ſame ſtructure with that of thoſe birds which live equally on animal and on vegetable food †.

* *Deipnos.* 9.

† Memoires de l'Academie des Sciences, depuis 1666 juſqu'en 1669, *tom.* iii. *partie* 3.

It

It is therefore eaſily reared: it charms by its noble port, its fine ſhapes, its brilliant plumage, enriched with intermingled tints of purple and beryl: its diſpoſition is mild and peaceable: it conſorts with its domeſtic companions, though of different ſpecies, and ſelects ſome favourite among them *.

It is alſo a pulverulent bird, like the cock: yet it employs its feet, like a hand, to carry food to its bill †. This habit ſeems to reſult from its proportions, the neck being ſhort, and the legs very tall; ſo that it is fatiguing to ſtoop to the ground.—The ancients had made moſt of theſe remarks on the Porphyrion, and it is one of the birds which they have deſcribed the beſt.

Both the Greeks and Romans, notwithſtanding their voracious luxury, abſtained from eating the Porphyrion. They brought it from Lybia ‡, from Comagene, and from the Baleric iſlands §, to be fed ||, and to be placed in their palaces and temples, where it was left at liberty as a gueſt ¶,

* See in Ælian the ſtory of a Porphyrion which died of grief, after having loſt the cock its companion.

† Pliny, *lib.* x. 46.

‡ Alexander the Myndian, in Athenæus, reckons the Porphyrion in the number of Lybian birds, and relates that it was ſacred to the gods in that country. According to Diodorus Siculus, Porphyrions were brought from the heart of Syria, with other kinds of birds diſtinguiſhed by their rich colours.

§ Pliny, *lib.* x. 46 and 49.

|| Belon.

¶ Ælian, *lib.* iii. 41.

whoſe

whoſe noble aſpect, whoſe gentle diſpoſition, and whoſe elegant plumage, merited ſuch honours.

Now if we compare this Porphyrion of the ancients with our Sultana Hen, figured in N° 810, *Planches Enluminées*, it appears that this bird, which was brought to us from Madagaſcar under the name of *taleve* *, is exactly the ſame. The academicians, who have deſcribed a ſimilar one, recognized alſo the Porphyrion in the Sultana Hen. It is about two feet long from the bill to the claws: the toes are extremely long, and completely parted, without the leaſt veſtige of membrane: they are diſpoſed as uſual, three before and one behind; and Geſner was miſtaken when he repreſented them as placed two and two: the neck is very ſhort in proportion to the length of the legs, which are featherleſs: the feet are very long; the tail is very ſhort; the bill is ſhaped like a flat cone at the ſides, and is pretty ſhort: the laſt property which characteriſes this bird is, that its front is bald, like that of the coot's, and covered with a plate, which, extending to the top of the head, ſpreads into an oval, and ſeems to be formed by the production of the horny ſubſtance of the bill. This is

* The *taleva* is a river bird of the bulk of a hen, which has many violet feathers; and its front, its bill, and its feet red. Flacourt ſpeaks of it with admiration. *Hiſt. Gen. des Voyages*, t. viii. p. 606.—The French navigators call this bird *blue hen*. "The blue hens of "Madagaſcar have bred on the iſle of France." *Remarks made in* 1773, *by the Viſcount de Querhoënt.*

what

what Ariſtotle expreſſes in Athenæus, by ſaying that the Porphyrion has its bill ſtrongly attached to its head. The academicians found two pretty large *cæca*, which expanded into ſacs; and the inflation of the lower part of the *œſophagus* ſeems to ſupply the place of a craw, which, Pliny ſays, is wanting in this bird.

This Sultana Hen, deſcribed by the Academicians, is the firſt bird of the kind that has been ſeen by the moderns. Geſner ſpeaks only from report, and from a drawing of it: Willughby ſays, that no naturaliſt has ſeen the Porphyrion. We owe to the Marquis de Neſle the pleaſure of having ſeen it alive; and we expreſs our moſt reſpectful thanks for what we regard as a debt of Natural Hiſtory, which every day is enriched by his enlightened and generous taſte: he has put it in our power to verify in a great meaſure, on his Sultana Hen, what the ancients have ſaid of their Porphyrion. This bird is very gentle and innocent, and at the ſame time timorous, fugitive, fond of ſolitude and retirement, concealing itſelf as much as poſſible when it eats. It cries from fear when one approaches, at firſt with a faint ſound, which afterwards grows ſhriller and louder, and ends with two or three dull and hollow claps: while in a cheerful mood, it vents ſofter and calmer accents. It ſeems to prefer fruits and roots, particularly thoſe of the ſuccories, to every other ſort of food, though it can alſo live on ſeeds. If

offered a fiſh, it eagerly ſeizes it, and devours it greedily. Often it repeatedly ſoaks its proviſions in water. How ſmall ſoever its morſel may be, it conſtantly clenches it with its long toes, bending the hind one over the reſt, and holding its foot half raiſed; it then eats by crumbs.

Scarce any bird has more beautiful colours; the blue of its plumage is ſoft and gloſſy, embelliſhed with brilliant reflections; its long feet, and the plate from the top of its head to the root of its bill, are of a fine red, and a tuft of white feathers under the tail heightens the luſtre of its charming garb. Except that it is rather ſmaller, the female differs not from the male, which exceeds the partridge, but is inferior to a common hen. The Marquis de Neſle brought this pair from Sicily, where, according to the note which he obligingly communicated to us, they are known under the name of *Gallo-fagiani*: they are found on the lake Lentini, above Catana, and are ſold for a moderate price in that city, as well as in Syracuſe and the adjacent towns. They appear alive in the public places, and plant themſelves beſide the ſellers of vegetables and fruits to pick up the refuſe: and this beautiful bird, which the Romans lodged in their temples, now experiences the decline of Italy. That fact ſhows that the Sultana Hens have been naturalized in Sicily from a few pairs of theſe Porphyrions introduced from

Africa;

Africa; and in all probability this fine ſpecies has been propagated, in like manner, in ſome other countries; for we ſee from a paſſage of Geſner, that this naturaliſt was convinced that theſe birds are found in Spain, and even in the ſouth of France.

This bird is one of thoſe which are by nature moſt diſpoſed to domeſtication, and to multiply them would be both agreeable and uſeful. The pair kept in the voleries of the Marquis de Neſle, neſtled laſt ſpring (1778); both male and female laboured in conſtructing the neſt; they placed it at ſome height from the ground, on a projection of the wall, with a heap of ſticks and ſtraws: the eggs were ſix in number, white, with a rough ſhell, exactly round, and about the ſize of a demi-billiard. The female was not aſſiduous in covering; and a common hen was ſubſtituted, but without ſucceſs. We may ſurely expect another hatch to be more proſperous if carefully attended by the mother herſelf; for this purpoſe theſe birds ought to enjoy the calm and retreat which they ſeek, and eſpecially in the ſeaſon of love.

[A] Specific character of the purple Gallinule, *Fulica Porphyrio*: "Its front is red, many bracelets; its body green, below violet."

BIRDS,

WHICH ARE RELATED TO THE SULTANA HEN.

SINCE the primary ſtock of the Sultana Hen inhabits the ſouthern regions of our continent, it is not probable that the climates of the north produce the ſecondary ſpecies. We muſt therefore reject the fourth, fifth, ſixth, ſeventh, and eighth ſpecies of Briſſon, which he preſumes to have the frontal plate, though Geſner, from whom he borrowed the deſcriptions, gives no indication of this plate, either in his text or by his figures. The ſecond of theſe appears to be a rail, and accordingly we have ranged it in that genus: the four others are water hens, as the original author himſelf ſays. With regard to the ninth ſpecies of Briſſon, which he calls the *Sultana Hen of Hudſon's Bay*, it ought to be excluded, both on account of the climate, and becauſe Edwards gives it as a coot, remarking at the ſame time that it is more akin to the rail. Notwithſtanding theſe retrenchments, there ſtill remain three ſpecies in the ancient continent, which ſeem to form the intermediate ſhade

ſhade between the Sultana Hen *, the coots, and the water hens. There are alſo three ſpecies in America, which appear the repreſentatives, in the new world, of the Sultana Hen and its ſubordinate ſpecies.

* Mr. Forſter found at Middleburg, one of the Society Iſles, *coots with a blue plumage*, which ſeem to be Sultana Hens.

The GREEN SULTANA HEN.

FIRST SPECIES.

Fulica Viridis. Gmel.
Gallinula Viridis. Lath. Ind.
Porphyrio Viridis. Briſſ.
The Green Gallinule. Lath. Syn.

THIS bird is much ſmaller than the Sultana, and exceeds not a rail. All the upper ſide of the body is dull green, but gloſſy; and all the under ſide of the body white, from the cheeks and the throat to the tail: the bill and frontal plate are yellowiſh-green. It is found in the Eaſt Indies.

The BROWN SULTANA HEN.

SECOND SPECIES.

Rallus Phœnicurus, var. 1. Gmel.
Gallinula Phœnicura, var. 1. Lath.

THIS bird comes from China: it is fifteen or ſixteen inches long. It has none of the rich tints that ſeem peculiar to this genus of birds, and perhaps the ſpecimen is a female. All the upper ſide of the body is brown or blackiſh cinereous; the belly is rufous; the fore ſide of the body, of the neck, and of the throat, and the circle about the eyes, are white; the frontal plate is ſmall, and the bill varies ſomewhat from the conical ſhape which obtains in the true Sultana; it is longer, and reſembles more the bill of the water hens.

The ANGOLI.

THIRD SPECIES.

Fulica Maderaſpatana. Gmel.
Porphyrio Maderaſpatanus. Briſſ.
Gallinula Maderaſpatana. Lath. Ind.
Crex Indica. Ray.
The Madras Rail-hen. Id.
The Madras Gallinule. Lath. Syn.

THIS bird is commonly at Madras called *Caunangoli*, which we have ſhortened into *Angoli*; the Gentoos term it *Boollu-cory*. It is difficult

difficult to determine whether it ought to be referred to the ſultanas, the water hens, or even the rails: all that we know of it is a ſhort hint given by Petiver in his addition to Ray's Synopſis; but this indication, like all the others of that fragment, is formed from drawings ſent from Madras, and expreſſes not the diſcriminating characters. Briſſon makes it his tenth ſpecies of Sultana Hen, and by conſequence preſumes that it has the frontal plate, though Petiver never mentions it: on the contrary, he ſays, that its bill is ſlender, ſharp, and longiſh; he applies the names of *crake* and *rail*, and he repreſents it as equal in bulk to a gooſe. So far it reſembles more the ſultana: and this is all that we can ſay, till we are better informed.

The LITTLE SULTANA HEN.

FOURTH SPECIES.

Fulica Martinica. Linn. and Gmel.
Porphyrio Minor. Briſſ.
Gallinula Martinica. Lath. Ind.
The Martinico Gallinule. Lath. Syn.

THE genus of the Sultana Hen occurs, as we have ſaid, in the new world; and if the ſpecies are not exactly the ſame, they are at leaſt

leaſt analogous. The preſent is a native of Guiana: it is only ſomewhat larger than the water-rail. It reſembles our Sultana Hen ſo cloſely, that in the whole hiſtory of birds there are few examples of analogies ſo intimate between thoſe of the two continents. Its back is blueiſh green; and all the fore ſide of the body is ſoft violet-blue, which covers alſo the neck and head, aſſuming a deeper caſt. It appears to us to be the ſame with what Briſſon makes his ſecond ſpecies.

The FAVOURITE.

FIFTH SPECIES.

Fulica Flaviroſtris. Gmel.
Gallinula Flaviroſtris. Lath. Ind.
The Favourite Gallinule. Lath. Syn.

THIS is nearly of the ſame ſize with the preceding, and comes from the ſame country. Perhaps it is only the female of the ſame ſpecies, eſpecially as the colours are the ſame, only more dilute; the blueiſh green of the wings, and the ſides of the neck, are faint; brown ſhines through on the back and on the tail: all the fore ſide of the body is white.

The ACINTLI.

SIXTH SPECIES.

Fulica Purpurea. Gmel.
Gallinula Purpurea. Lath. Ind.
Quachilton. Fernand. Nieremb. Johnſt. &c.
The Crowing Gallinule. Lath. Syn.

THIS Mexican bird, which Briſſon refers to our ſultana hen, or porphyrion of the ancients, differs by ſeveral characters: beſides that we can hardly ſuppoſe that a bird of ſuch laborious flight could paſs from the one continent into the other; the toes and feet of the Acintli are not red, but yellow or greeniſh; all its plumage is blackiſh purple, intermingled with ſome white feathers. Fernandez gives it the names of *quachilton* and *yacacintli*; the latter of which we have adopted, and ſhortened. The denomination of *avis ſiliquaſtrini capitis* is very expreſſive, and ſhows that the flat frontal plate is like a large pod, a character which connects this bird with the coots and ſultana hens. Fernandez adds, that the Acintli crows like a cock during the night and at the break of day; which might afford a ſuſpicion that it belongs not to the genus of the ſultana hen, whoſe voice bears no reſemblance to that of the cock.

A bird of a ſpecies nearly allied to this, if not the ſame, is deſcribed by Father Feuillée, under the name of *water hen* *: it has the character of the ſultana, the broad flat eſcutcheon on the front; all its attire is blue, except a cowl of black on the head and neck. Feuillée remarks alſo differences of colours between the male and female, which occur not in our ſultana hens, in which the female is ſmaller than the male, but both perfectly alike in colours.

Nature has therefore produced at great diſtances the ſpecies of ſultana hens, but always in the ſouthern latitudes. Forſter found it in the South Sea; and the *purple water hen* which he ſaw at Anamooka appears to be a bird of the ſame family.

* "The female has its crown deep fulvous; its mantle of the "ſame colour; its facings white; its wings greeniſh, mixed with a "little fulvous; the quills ſky-blue, mixed with a little green: "theſe birds are very lean, and have a diſagreeable marſhy taſte." *Feuillée.*

[A] Specific character of the Crowing Gallinule, *Fulica Purpurea*: "It is purple, its bill pale, its feet greeniſh-yellow."

The COMMON COOT.

La Foulque. *Buff.*

Fulica Atra. Linn. and Gmel.
* *Fulica.* All the Naturalifts.

THE fpecies of the Coot commences the extenfive tribe of true aquatic birds. Though its feet are not completely webbed, it lives habitually on the water, and feems even more attached to that element than any fowl, except the diver. It is feldom feen on land, and is there fo bewildered and defencelefs, that it frequently fuffers itfelf to be caught with the hand. It fpends the whole day on the pools, which it prefers to the rivers; and, except in walking from one pool to another, it never fets foot on

* The Greek name is conjectured, from a paffage in Ariftotle, *lib.* ix. 35, to be Φαλαρις; the modern Greeks call it Λυφα: in Latin *Fulica* or *Fulix*, becaufe of its dufky colour; *fuligo*, fmoke: hence the Italian *Follega* or *Follata*: on Lago Maggiore *Pullon*: in Catalonia *Folge, Follaga, Gallinofa de Aigua* (water hen): in Germany *Waffer-houn, Rohr-heunle* (reed hen), *Tautcherlein* (diver): in Suabia *Blefz, Bleffing*: in Lower Saxony *Zapp*: in Switzerland *Belch, Bellique, Belchifen*: in Holland *Meer-Coot*: in Sweden *Blaos-Klacka*: in Denmark *Blis-hone, Blas-and, Vard-hone*: in Poland *Lyfka, Dzika*, or *Kacza*: in many provinces of France *Sudelle*; and in Picardy *Blerie*.

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THE COMMON COOT.

ſhore: and if the interval be conſiderable, it has recourſe to its wings, and riſes very high; but commonly it flies only in the night *.

The Coots, like many other water fowl, ſee beſt in the duſk, and the older ones never ſeek their food but in the night †. They lurk among the ruſhes the greateſt part of the day; and when diſturbed in their retreat, they will bury themſelves in the mud rather than ſpring. They ſeem to make an effort in commencing the motion ſo natural to other birds; and whether on water or on land they riſe with difficulty. The young Coots, leſs ſolitary or circumſpect, are ſeen at all hours of the day bouncing with ſmall leaps out of the water, one fronting another. They ſuffer the fowler to approach, yet eye him ſteadily; and they plunge ſo nimbly, the inſtant they perceive the flaſh, that often they elude the ſhot. But in autumn, when theſe birds leave the ſmall pools and aſſemble on the lakes, vaſt quantities are caught ‡. For this purpoſe, a number of ſkiffs are arranged in a line extending the breadth of the lake; this little fleet is rowed forward,

* "I never ſaw it fly during the day but to avoid the fowler; "but I have heard it paſs over my head at all hours of the night." *Obſervation of M. Hebert.*

† According to Salerne, the Coot, when other food fails (and this can ſeldom happen) dives, and tears up from the bottom of the water the root of a great ruſh, which it gives its young to ſuck.

‡ Particularly in Lorraine, on the great pools of Tiaucourt and of Indre.

forward, and drives the Coots into ſome inlet: the birds, then, urged by fear and neceſſity, riſe at once into the air, and, endeavouring to regain the open water, they paſs over the heads of the fowlers, and receive a general and deſtructive fire. The ſame plan of operation is now conducted at the other end of the lake, where thoſe which eſcaped have alighted; and what is ſingular, neither the clamours of the ſportſmen, the report of the muſkets, the ſpectacle of the range of boats, nor the death of their companions, can induce theſe birds to betake to diſtant flight. They do not quit this ſcene of carnage till the night following; and a few linger behind next morning.

Theſe indolent birds have deſervedly many foes: the moor buzzard ſucks their eggs, and plunders their young; and to this deſtruction muſt be imputed the fewneſs of their number, conſidering that they are very prolific. The Coot lays eighteen or twenty eggs, which are of a dirty white, and almoſt as large as a hen's; and if the firſt hatch be deſtroyed, the mother has often a ſecond, of ten or twelve eggs *. She builds in deluged ſpots covered with dry reeds: ſhe ſelects a tuft, on which ſhe raiſes a ſtructure above the level of the water, and lines the cavity with little dry herbs and tops of reeds, forming a large ſhapeleſs neſt, diſtinguiſhable at

* Obſervation of M. Baillon.

a diſ-

a diſtance *. She ſits twenty-two or twenty-three days, and as ſoon as the young are hatched they jump out of the neſt, and never return again. The mother cheriſhes them under her wings, and they ſleep round her beneath the reeds: ſhe leads them to the water, in which they ſwim and dive well, from the moment of their birth. They are covered at firſt with a ſmoky black down, and look very ugly; only the trace is to be ſeen of the white plate deſtined to ornament their front. It is then that the bird of prey aſſails them ſo cruelly, and often devours the dam and her brood †. The old Coots, which have repeatedly loſt their callow offspring, grow cautious from misfortune, and conceal their neſts among the flags on the margin of the pools; and keep together their young among theſe thick coverts. Theſe alone perpetuate the ſpecies; for ſo great is the depopulation of the reſt, that a good obſerver, who has particularly ſtudied the œconomy of the Coots ‡, reckons that not above one-tenth eſcape the talons of the birds of prey, particularly thoſe of the moor buzzard.

* There is little probability that the Coot, as Salerne alledges, makes two neſts, one for hatching, and another for lodging her young. What may have given riſe to this notion is, that the brood, after they have once quitted the neſt, never return to it, but ſquat with their mother among the ruſhes.

† The ſame Salerne pretends, that the Coot defends itſelf againſt the bird of prey, by preſenting its talons, which are, indeed, pretty ſharp; but this feeble reſiſtance muſt generally be of little avail.

‡ M. Baillon.

The

The Coots breed early in the ſpring, and eggs are found in their body as ſoon as the end of winter *. They reſide on our pools the greateſt part of the year, and in ſome places they are permanent ſettlers †. Yet in autumn they all leave the ſmall pools, and reſort to the large ones, where they aſſemble in a great flock: there they often remain till December; and when the ſnows, and eſpecially the froſts, drive them from the high and chill tracts, they deſcend into the plains, which enjoy a milder temperature; and the want of water, rather than the cold, conſtrains them to ſhift their haunts. M. Hebert ſaw them in a very ſevere winter on the lake of Nantua, which is late in freezing: he ſaw them alſo in the plains of Brie, though in ſmall numbers, in the depth of winter. But, moſt probably, the bulk of the ſpecies remove by degrees to the adjacent countries, which are warmer: for, as their flight is laborious and tardy, they cannot journey to any great diſtance; and indeed they appear again as early as February.

The Coots are ſpread through the whole of Europe, from Italy to Sweden: they are found, too, in Aſia ‡. They occur in Greenland, if Egede rightly tranſlates two words in the lan-

* Belon.

† As in Lower Picardy, according to the obſervations of M. Baillon.

‡ Lettres Edifiantes, *thirtieth collection*, p. 317.

guage

guage of the natives, by the great and little Coot *. In fact, the ſpecies conſiſts of two families, which live in the ſame lake without ever cohabiting, and are diſtinguiſhed from each other ſolely by their bulk, and not by the colour of the frontal plate, as ſome pretend; for in both that is uſually white, and becomes red only in the ſeaſon of love.

This thick naked membrane, which covers the fore ſide of the head like an eſcutcheon, and which made the ancients give the Coot the epithet of *bald*, ſeems to be a production of the upper layer of the ſubſtance of the bill, which is ſoft, and almoſt fleſhy near the root. The bill is faſhioned into a flat cone at the ſides, and is bluiſh white; when in the ſeaſon of courtſhip, the frontal plate aſſumes its vermilion tint.

All the plumage is furniſhed with a thick down, covered with delicate cloſe feathers; it is of a leaden-black, full and deep on the head and neck, with a white ſtreak on the fold of the wing: no difference indicates the ſex. The Coot is as large as a domeſtic hen, and its head and body are nearly of the ſame form: its toes are half-webbed, fringed fully on both ſides with a membrane, ſcalloped into feſtoons, whoſe knots correſpond to the joints of the *phalanges*: theſe membranes are, like the feet, of a leaden colour: above the knee a ſmall portion of the naked leg is circled with red: the thighs are

* *Navia* and *Navialurſcak.*

thick

thick and fleſhy. Theſe birds have a gizzard, two large *cæca*, and a capacious gall-bladder *. They live chiefly, as well as the water-hens, on aquatic inſects, ſmall fiſh, and leeches; yet they alſo gather ſeeds, and ſwallow pebbles: their fleſh is black, lean, and has a ſlight marſhy taſte.

In the ſtate of liberty, the Coot has two different cries, the one broken, the other drawling: it is the latter, no doubt, from which Aratus draws a prognoſtic †; for the former is repreſented by Pliny as boding ſtorms ‡. But captivity ſeems to diſpirit and oppreſs it ſo much, that it loſes its voice, and would ſeem abſolutely mute.

* Belon.

† *Haud modicos tremulo fundens è gutture cantus.* Apud Cicer. *lib.* i. *De Nat. Deor.*

‡ *Et fulicæ matutino clangore tempeſtatem.* lib. xviii. 35.

[A] Specific character of the Common Coot, *Fulica Atra*: "Its "front is fleſh-coloured, its bracelets yellow, its body blackiſh." The Coots remain the whole year in Great Britain. They are found alſo in North America: on the rivers in Carolina they are called *fluſterers*. The ſavages, near the falls of the Niagara, dreſs their ſkins for pouches.

The GREATER COOT.

LA MACROULE, *ou* GRANDE FOULQUE.
Buff.

Fulica Aterrima. Linn. and Gmel.
Fulica Major. Will. Ray, and Briff.

ALL that we have faid of the common Coot *(morelle)* applies to the Greater Coot *(macroule)*; their habits and their fhapes are the fame, only the latter is rather larger than the former, and the bald fpace on the front is alfo broader. One of thefe birds, taken in March 1779, near Montbard, among the vines, whither it had been driven by a violent wind, afforded me an opportunity, for the fpace of a month, during which it was kept alive, of making the following obfervations. It refufed, at firft, all forts of dreffed food, bread, cheefe, and flefh, raw or boiled: it rejected alfo earth-worms and young frogs, whether dead or alive. It required to be crammed with gobbets of foaked bread. It was extremely fond of a tray full of water, and would repofe whole hours in it. It fought alfo to hide itfelf; though it was not wild, and fuffered itfelf to be laid hold of, only pecking, with a few ftrokes, the hand that was about to feize it, and thefe

these so feeble, either because of the softness of the bill, or the weakness of the muscles, as hardly to make any impression on the skin: it betrayed neither anger nor impatience; it made no endeavour to escape, and shewed no surprize or fear. But this stupid tranquillity, this total want of vigour and courage, proceeded probably from its bewildered condition, remote from its proper element and its usual habits. It seemed deaf and mute; any noise made close to its ear never moved it, or drew the least inclination of its head; and though it was often pursued and teazed, it never vented the smallest cry. We have the water-hen equally mute in captivity. The misery of slavery is greater than is supposed, since it sometimes bereaves its unhappy victims of even the power of complaining.

[A] Specific character of the Greater Coot, *Fulica Aterrima*: "Its front is white, its bracelets red, its body blackish."

The CRESTED COOT.

LA GRANDE FOULQUE À CRÊTE. *Buff.*

Fulica Criſtata. Gmel.

IN this Coot, the fleſhy plate on the front is raiſed and detached in two ſhreds, which form a real comb. It is beſides conſiderably larger than the preceding ſpecies, which it exactly reſembles in its ſhape and plumage. It was ſent to us from Madagaſcar. May it not be really the ſame with the European, only expanded by the influence of a hotter and more active climate?

The PHALAROPES.

EDWARDS was the firſt who introduced this genus of ſmall birds, which, with the bulk and almoſt the ſhape of the ſandpiper, have feet like thoſe of the coot. From this analogy, Briſſon terms them *Phalaropes* *; while Edwards, reſting on their more obvious appearance, is contented with the name *Tringa.* They are, indeed, little ſnipes or ſandpipers, on which

* From Φαλαρις, which is probably the Greek for the coot; and πους, the foot.

 nature

nature has beſtowed the feet of the coot. They ſeem to belong to the northern countries: thoſe figured by Edwards came from Hudſon's Bay, and we received ſome from Siberia. But whether they migrate or ſtray, they are ſometimes ſeen in England; for Edwards mentions one which was killed in winter in Yorkſhire. He deſcribes four different birds, which may be reduced to three ſpecies.

The CINEREOUS PHALAROPE.

FIRST SPECIES.

Tringa Hyperborea, maſ. Linn. and Gmel.
Phalaropus Cinereus.
Tringa Fuſca. Gmel.
Phalaropus Fuſcus. Lath. Ind.
Phalaropus. Briſſ.
The Coot-footed Tringa. Edw.
The Brown Phalarope. Penn. and Lath.

IT is eight inches long from the bill to the tail, which projects not beyond the wings: its bill is ſlender, flattened horizontally, thirteen inches long, ſlightly ſwelled and bent near the point; its feet are deep fringed, like thoſe of the coot, with a membrane in feſtoons, whoſe knots correſpond alſo to the articulations of the toes:

the upper ſurface of the head, neck, and body, is gray, waved gently on the back with brown and blackiſh: it has a white neck-piece, incloſed by an orange rufous line; below it, the neck is encircled with gray, and all the under ſide of the body is white. Willughby ſays, that he was informed by Dr. Johnſon, that this bird has the ſhrill clamorous voice of the ſea-ſwallows: but he did wrong to range it with theſe ſwallows, eſpecially as he remarked its analogy to the coot.

The RED PHALAROPE.

SECOND SPECIES.

Tringa Fulicaria. Linn. and Gmel.
Phalaropus Hyperboreus, fem. Lath. Ind.
Phalaropus Rufeſcens. Briſſ.
The Red Coot-footed Tringa. Edw.

THE fore ſide of the neck, the breaſt, and the belly, are brick-coloured; the throat rufous brown, ſpotted with blackiſh; the bill is quite ſtraight, like that of the ſandpiper; the toes fringed with broad membranous feſtoons: it is rather larger than the preceding, being equal to a kingfiſher.

The PHALAROPE with INDENTED FESTOONS.

THIRD SPECIES.

Tringa Lobata. Linn. and Gmel.
Phalaropus Lobatus. Lath. Ind.
Phalaropus. Briſſ.
The Gray Coot-footed Tringa. Edw.
The Gray Phalarope. Penn. and Lath.

THE ſcalloped feſtoons, which were ſmooth in the preceding, are here delicately indented on the edges; and this character ſufficiently diſcriminates it. Like the firſt ſpecies, it has its bill flattened horizontally, a little inflated near the point, and hollowed above by two grooves; its eyes are a little drawn towards the back of its head, whoſe top bears a blackiſh ſpot, the reſt being white, which is the colour of the whole of the fore ſide and under ſide of the body: the upper ſide is ſlaty-gray, with tints of brown, and obſcure longitudinal ſpots. It is of the ſize of the jack ſnipe.

The GREBE.

FIRST SPECIES.

Colymbus Urinator. Linn. and Gmel.
Colymbus. Briff.
Colymbus Major. Aldrov. Will. Ray, Johnft. &c.
The Greater Loon, or Arfefoot. Will.
The Greater Dobchick. Edw.
The Tippet Grebe. Penn. and Lath.*

THE Grebe is well known by thofe beautiful filvery white muffs, which have the foft clofenefs of down, the elafticity of feathers, and the luftre of filk. Its undreffed plumage, particularly that of the breaft, is really a fine down, very clofe and firm, and regularly difpofed, whofe gliftening filaments lie upon each other, and join, fo as to form a glaffy, fhining furface, equally impenetrable by cold or humidity. This clothing, fo well adapted to the rigours of feafon and of climate, was neceffary to the Grebe, which in the fevereft winters remains conftantly in the water, like the divers; infomuch that it has often been confounded with them under the common name *colymbus* †. But the Grebes differ effentially from the divers, which have their toes com-

* In Italian *Smergo, Fifolo Marino:* in German *Deucchel.*
† From Κολυμβαω, *to go into the water.*

 pletely

pletely webbed, and not edged with a ſcalloped membrane, parted at each toe; not to mention other diſtinctions, which ſhall be afterwards ſtated. Accordingly, accurate naturaliſts, appropriating to the divers the terms *mergus*, *uria*, and *æthya*, reſtrict that of *colymbus* to the great and little Grebes.

By its ſtructure, the Grebe is deſtined to inhabit the waters; its legs are placed entirely behind, and almoſt ſunk into its belly, ſo that only the feet appear, and are like oars; they naturally throw themſelves outwards, and could not ſupport the body of the bird on the ground, unleſs it ſtood quite erect. In this poſition, the ſtriking with its wings would, inſtead of raiſing it into the air, only overturn it; ſince the legs could not aid the impulſion. It requires therefore a great effort to begin its flight on land; and, as if conſcious of this imbecility, it is obſerved to avoid the ſhore; and to prevent its being driven thither, it always ſwims againſt the wind *. If unfortunately a wave caſts it on the brink, it continues ſtruggling with its feet and wings, though for the moſt part in vain, to mount into the air, and return to the water: it may be then caught by the hand, in ſpite of the violent ſtrokes it gives with its bill in defence. But it is as nimble in the water as it is feeble on land: it ſwims, dives, daſhes through the waves, and runs on the ſurface with ſurpriſing rapidity;

* Oppian, *Exeutic. lib.* ii.

its

its motions are ſaid even to be never quicker and briſker than when under water *. It purſues the fiſh to a very great depth †, and is often caught in fiſhermen's nets. It dives deeper than the ſcoter duck, which is taken only on beds of ſhell-fiſh left bare by the ebb-tide; while the Grebes are taken in the open ſea, often at more than twenty feet depth.

The Grebes frequent equally the ſea and the freſh waters, though naturaliſts have ſcarce ſpoken but of thoſe which are ſeen on lakes, pools, and inlets of rivers ‡. Several ſpecies occur on the coaſts of Brittany, Picardy, and in the channel §. The Grebe of the lake of Geneva, which is found alſo on that of Zuric, and on the other lakes of Switzerland ||, and ſometimes on that of Nantua, and even on certain pools of Burgundy and Lorraine, is the kind beſt known. It is rather larger than the coot; its length from the bill to the rump is a foot five inches, and from the bill to the nails a foot and nine or ten inches: all the upper ſide of the body is deep brown but gloſſy, and all the fore ſide is of a very fine ſilvery white. Like all the other Grebes, it has a ſmall head, a ſtraight and pointed bill, and from the corners a ſmall naked red ſkin extends to the eye; its wings are ſhort and

* Willughby.
† Schwenckfeld.
‡ *Idem.*
§ The little and creſted Grebes, according to M. Baillon.
|| Geſner.

ſomewhat diſproportioned to the body. The bird riſes with difficulty, but after it has caught the wind, it flies far *. Its voice is loud and rough †. Its leg, or rather its tarſus, is widened and flattened laterally; the ſcales with which it is covered form on the hind part a double indenting; the nails are broad and flat: the tail is wanting in all the grebes, but they have on the rump the tubercles, in which the tail-quills are uſually inſerted, but theſe tubercles are ſmaller than in other birds, and only bear a tuft of ſmall feathers.

Theſe birds are commonly very fat: not only they feed their young with little fiſhes, they eat ſea-weed and other plants ‡, and ſwallow mud §. White feathers too are often found in their ſtomach; not that they devour birds, they catch the down which plays on the water, miſtaking it for a ſmall fiſh. It is moſt probable that the Grebes, like the cormorants, caſt up the reſidue of digeſtion; at leaſt fiſh-bones are found rolled into pellets and unaltered at the bottom of the ventricle.

The fiſhers of Picardy reſort to the Engliſh coaſt in ſearch of the Grebes' neſts, ſince they do not breed on that of France ‖; and they find theſe in the holes of rocks, into which the birds

* Willughby.
† Geſner and Belon.
‡ Willughby.
§ Schwenckfeld.
‖ Obſervations of M. Baillon.

probably

probably fly, ſince they cannot climb, and whence the young muſt throw themſelves into the ſea. But on our large pools they build with reeds and ruſhes interwoven, and the neſt is half dipped in the water, though not entirely afloat, as Linnæus aſſerts, but ſhut and attached to the reeds *. It commonly contains two eggs, ſeldom three. Againſt the month of June the young neſtlings are ſeen ſwimming with their dam †.

The genus of theſe birds conſiſts of two families differing in ſize. To the large ſort we ſhall appropriate the name *grebes*, and to the ſmall, that of *cheſnuts (caſtagneux)*: this diviſion is natural and ancient, and ſeems to be indicated by Athenæus under the terms *colymbis* and *colymbida*; ſince to the latter he conſtantly joins the epithet of *little*. There is however conſiderable variety in regard to ſize.

* Obſervations of M. Lottinger.

† *Idem.*

[A] Specific character of the Tippet Grebe, *Colymbus Urinator*: "Its head is ſmooth, its lower eye-lid yellow, a white ſpot on the "wings." The Grebes are very attentive in feeding their young, and will even carry them when tired on their back or under their wings. Their fleſh is rank, but their fat is ſuppoſed to have great virtue in rheumatic complaints. On the lake of Geneva, theſe birds appear in ſmall flocks of ten or twelve: they ſell fourteen ſhillings a-piece. The ſkin, with the beautiful plumage on the under ſide of the body, is made into muffs and tippets. This ſpecies is rare in England.

The LITTLE GREBE.

SECOND SPECIES.

Colymbus Obſcurus. Gmel.
Podiceps Obſcurus. Lath. Ind.
Colymbus Minor. Briſſ.
The Black and White Dobchick. Edw.
The White and Duſky Grebe. Penn.
The Duſky Grebe. Lath. Syn.

THIS is ſmaller than the preceding, which is almoſt their only difference. But if that be conſtant, they ought to be diſcriminated; eſpecially ſince the little Grebe is known in the channel, and inhabits the ſea-coaſt, whereas the great Grebe occurs more frequently in freſh waters.

[A] Specific character of the *Colymbus Obſcurus*: "Its head "is ſmooth; its front, the under ſide of its body, and the tips of its "ſecondary wing-quills, white."

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THE CRESTED GREBE

The CRESTED GREBE.

THIRD SPECIES.

Colymbus Criſtatus. Gmel. and Briſſ.
Podiceps Criſtatus. Lath. Ind.
Colymbus Major, Criſtatus & Cornutus. Ald. Geſn. &c.
Acitli. Hernandez.
The Greater Creſted and Horned Ducker. Alb. and Plot.
The Car Gooſe. Charleton.
The Gray or Aſh-coloured Loon. Will.
The Great Creſted Grebe. Penn. and Lath.

THE feathers on the crown of the head extend a little behind, and form a ſort of creſt, which it raiſes or depreſſes according as it is tranquil or diſcompoſed. It is larger than the common grebe, being at leaſt two feet from the bill to the nails: but it differs not in its plumage; all the fore ſide of the body being of a fine ſilvery white, the upper ſide blackiſh brown, with a little white on the wings.—Theſe colours compoſe the general livery of the grebes.

It appears from comparing the indications of ornithologiſts, that the Creſted Grebe inhabits equally ſeas and lakes, the coaſts on the Mediterranean, and thoſe waſhed by the Atlantic. The ſpecies occurs even in North America, and is the *Acitli*, which Hernandez ſays frequents the lake of Mexico.

It has been remarked, that the Grebes of this ſpecies, and probably it is the ſame with the others,

others, acquire not till after moulting their fine ſatin white. The iris, which is always very brilliant and reddiſh, becomes inflamed, and aſſumes a ruby tint, in the ſeaſon of love. This bird is ſaid to deſtroy numbers of young whitings and ſturgeons' fry, and, when in want of other food, to eat ſhrimps *.

* Obſervations made in the Channel, by M. Baillon, of Montreuil-ſur-mer.

[A] Specific character of the Creſted Grebe, *Colymbus Criſtatus*: "Its head is rufous, its neck black, its ſecondary wing-quills "white." Theſe birds are frequent in the fens of Lincolnſhire, and on the meres of Shropſhire, Cheſhire, and Staffordſhire, where they breed. Their ſkins are made into tippets equally valuable with thoſe from Geneva. Mr. Latham reckons the Creſted Grebe to be the adult, and the Tippet Grebe the young bird of the year's hatch.

The LITTLE CRESTED GREBE.

FOURTH SPECIES.

Colymbus Auritus. Gmel.
Podiceps Auritus. Lath. Ind.
The Eared Dobchick. Edw.
The Eared Grebe. Penn. and Lath.

THIS Grebe is not larger than a teal, and differs from the preceding not only in ſize, but alſo becauſe the feathers on the crown of the head, which compoſe the creſt, are parted into two tufts, and that ſpots of cheſnut-brown mix with the white on the fore ſide of the neck. With

With reſpect to the identity ſuppoſed by Briſſon between this ſpecies and "the greater aſh-coloured ducker" of Willughby, it is difficult to decide; ſince that naturaliſt and Ray form their deſcription merely from a drawing of Brown's.

[A] Specific character of the *Colymbus Auritus*: "Its head is black, creſted with ferruginous ears."

The HORNED GREBE.

FIFTH SPECIES.

Colymbus Cornutus. Gmel.
Podiceps Cornutus. Lath.
The Eared or Horned Dobchick. Edw.

THIS Grebe has a black tuft, divided behind as it were into two horns; it has alſo a ſort of mane, rufous at the root, black at the point, cut round the neck; which gives it a very odd look, and makes it to be regarded as a monſtrous ſpecies. It is rather larger than the common grebe; its plumage is the ſame, except the mane and the flanks, which are rufous.

This Horned Grebe ſeems to be extenſively ſpread: it is known in Italy, in Switzerland, in Germany, in Poland, in Holland, and in England. As it is of a very ſingular figure, it has been every where remarked. Fernandez de-

ſcribes

ſcribes with accuracy one found in Mexico; and adds, that it is called the *water hare*, but does not aſſign the reaſon.

[A] Specific character of the *Colymbus Cornutus*: "Its head is "gloſſy-green, with a yellow bar at its eye, extended behind like "a creſt."

The LITTLE HORNED GREBE.

SIXTH SPECIES.

Podiceps Cornutus, var. Lath.
Colymbus Cornutus Minor. Briſſ.

THERE is the ſame difference with regard to bulk between the two horned grebes as between the two creſted grebes. The little Horned Grebe has two pencils of feathers, which growing out from behind the eyes, form its horns of an orange rufous: this is alſo the colour of the fore ſide of the neck and of the flanks; the top of the neck is clothed with puffed feathers, not broken, however, or interſected by a ridge; theſe feathers are brown tinged with greeniſh, and ſo is the upper ſide of the head: the mantle is brown, and the breaſt ſilvery white, as in the other grebes. It is of this in particular that the neſt is ſaid by Linnæus to float on the water: he adds, that it lays four or five eggs, and that the female is entirely gray *.

* *Fauna Suecica*, N° 123.

It

It is known in moſt countries of Europe, whether maritime or inland. Edwards received it from Hudſon's Bay *. But its being found in North America is no reaſon why Briſſon ſhould infer that it is the ſame with the *Yacapitzahoac* of Fernandez; which indeed appears to be a grebe, but is not ſufficiently characterized. With regard to the *Trapazorola* of Geſner, as likewiſe of Briſſon, it is moſt probably a *cheſnut*; at leaſt it is not a horned grebe, ſince Geſner expreſsly mentions its having no creſt.

* We will not heſitate to refer the *Eared Dobchick* of that ſame naturaliſt, notwithſtanding ſome differences in dimenſions, to the Little Horned Grebe.

The BLACK-BREASTED GREBE.

LE GREBE DUC-LAART. *Buff.*

SEVENTH SPECIES.

Colymbus Thomenſis. Gmel.
Podiceps Thomenſis. Lath.
Colymbus Inſulæ St. Thomæ. Briſſ.

THIS Grebe is called the *laart duck* in the iſland of St. Thomas, where Father Feuillée obſerved and deſcribed it. What diſtinguiſhes it moſt, is a black ſpot in the midſt of its

its fine white breaſt-plate, and the colour of its wings, which is pale rufous. It is as large, he tells us, as a pullet: he remarks alſo, that the point of its bill is ſlightly curved, a property which belongs equally to the following ſpecies *.

* Thus deſcribed by Briſſon: "Above, dull brown; below, "white, variegated with gray ſpots; a bright white ſpot on either "ſide between the bill and the eye; a black ſpot on the middle of "the breaſt; the wing-quills pale rufous."

The LOUISIANA GREBE.

EIGHTH SPECIES.

Colymbus Ludovicianus. Gmel.
Podiceps Ludovicianus. Lath.

BESIDES that its bill has a gentle curvature at the tip, its breaſt is entirely white; its flanks are deeply ſtained with brown and blackiſh, and the fore ſide of its neck blackiſh. It is ſmaller than the common grebe.

[A] Specific character of the *Colymbus Ludovicianus*: "Its "head is ſmooth and brown, its body brown, its ſides ferruginous, "the middle of its breaſt white."

The RED-NECKED GREBE.

LE JOUGRIS *. *Buff.*

NINTH SPECIES.

Colymbus Rubricollis. }
Colymbus Subcristatus. } Gmel.
Podiceps Rubricollis. Lath.

THE cheeks and chin are gray; the fore side of the neck is rufous, and the upper surface dark brown. It is nearly as large as the horned grebe.

* *i. e.* Joues Grises, or *Gray Cheeks*.

The GREAT GREBE.

TENTH SPECIES.

Colymbus Cayennensis. Gmel.
Podiceps Cayanus. Lath. Ind.
The Cayenne Grebe. Lath. Syn.

THE epithet *great* is due more to the length of its neck than to the bulk of its body: its head is raised three or four inches higher than that of the common grebe. Its upper surface

ſurface is brown; the fore ſide of its body rufous brown, which extends alſo on the flanks, and ſhades the white of the breaſt. It is found in Cayenne.

FROM the enumeration we have made, it appears, that the ſpecies of Grebes are diffuſed through both continents; they ſeem diſperſed from pole to pole. The *Kaarſaak* * and the *Eſarokitſok* of the Greenlanders are probably grebes: and in the antarctic regions, M. Bougainville found, at the Malouine iſlands, two birds which appear to belong to this genus rather than to the divers †.

[A] Specific character of the *Colymbus Cayennenſis*: "Its head "is ſmooth, its throat rufous, its breaſt and belly white."

* "The bird which the Greenlanders call *kaarſaak*, expreſſing "its cry by that name, is a ſort of *colymbus*: according to them, "it foretells rain or fine weather, according as its tone of voice is "hoarſe and rapid, or ſoft and lengthened out. They alſo call it "the *ſummer bird*, becauſe its appearance announces that joyous "ſeaſon. The female lays near pools of freſh water, and it is pre-"tended that ſhe is ſo much attached to her brood as to ſit even "when the place is overflowed." *Hiſt. Gen. des Voyages, tom.* xix. *p.* 45. The Greenland duck *with a pointed bill, and a tuft on its head*, mentioned by Crantz, appears alſo to be a grebe. See *ibid.* p. 43.

† "In the Malouine iſlands there are two ſpecies of ſmall di-"vers; the one has its back of an aſh-colour, and its belly white; "the feathers of the belly are ſo ſilky, ſo brilliant, and ſo cloſe, that "we took it for the grebe, which furniſhes the materials of pre-"cious muffs: this ſpecies is rare. The other, more common, is "entirely brown, having its belly ſomewhat lighter than its back;

"its

"its eyes are like rubies, and their wonderful vivacity is height-"ened by the contraſt with a circle of white feathers that ſurround "them, and which has given occaſion to the name of *ſpectacle diver.* "It has two young, too delicate no doubt to bear the coolneſs of "the water when they are clothed only with down, for the mother "then carries them on her back. Theſe two ſpecies have not their "feet palmated, like other water fowl; their toes are parted, and "furniſhed on each ſide with a very ſtrong membrane; in this "ſtate, each toe reſembles a leaf rounded towards the nail, and the "more ſo, as from the toe lines proceed to terminate in the extre-"mity of the membranes, and as the whole has the green colour of "leaves, without much thickneſs."—*Voyage autour du Monde, par de Bougainville, tom.* ii. *p.* 117, 118.

The CHESNUT

LE CASTAGNEUX. *Buff.*

FIRST SPECIES.

Colymbus Minor. Gmel.
Podiceps Minor. Lath. Ray, and Will.
Colymbus Fluviatilis. Briff.
Mergus Parvus Fluviatilis. Gefner.
The Didapper, Dipper, Dobchick, Small Doucker, Loon, or Arfefoot. } Will.
The Little Grebe. Penn. and Lath.

WE have faid, that the Chefnut is much fmaller than the other grebes: we may even add, that, except the ftormy petrel, it is the leaft of all the fwimming birds. It refembles the petrel alfo, in being clothed with down inftead of feathers. But its bill, its feet, and all its body, are exactly like thofe of the grebes: its colours are nearly the fame, but, as its back is of a chefnut-brown, it has been termed the *caftagneux*. In fome individuals, the fore fide of the body is gray, and not of a gloffy white; in others, they are more inclined to blackifh than to brown on the back; and this variety in the colours has been remarked by Aldrovandus. Like the grebes, the Chefnut wants the power of

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THE LITTLE GREBE.

of ſtanding and walking on the ground; its legs trail and project behind, and cannot ſupport it*: with difficulty it riſes, but when once it has mounted, it flies to a great diſtance. It is ſeen on the rivers the whole winter, at which time it is very fat. Though called the *river grebe*, it is ſeen alſo on the ſea-ſhore, where it eats ſhrimps and ſmelts †, as it likewiſe feeds on young crabs and ſmall fiſh in freſh waters. We have found particles of ſand in its ſtomach; this is muſcular, and lined with a glandulous membrane, thick and inadheſive: the inteſtines, as Belon obſerves, are very weak; the two legs are attached behind the body by a membrane, which projects when they are extended, and is faſtened very near the joint of the tarſus; above the rump, and inſtead of a tail, are two ſmall pencils of down, which riſe each out of its tubercle: it is alſo obſerved, that the webs of the toes have a border indented with little ſcales ranged regularly.

We conceive the *Tropazorola* of Geſner to be the ſame bird: that naturaliſt ſays, that the former appears, after winter, on the lakes of Switzerland.

* Belon. † *Idem.*

[A] Specific character of the *Colymbus Minor:* "It is ſcarlet, "below white and ſpotted, its head ſmooth."

The COOT-GREBE.

FIFTH SPECIES.

NATURE never proceeds by ſtarts: ſhe fills up all the intervals, and connects remote objects, by a chain of intermediate productions. The Coot-Grebe, hitherto unknown, is related to both theſe *genera* of birds. Its tail is pretty broad and its wings long; all its upper ſurface is olive brown, and all the fore ſide of the body is a very fine white; the toes and their webs are barred tranſverſely with black and white or yellow ſtripes, which produces an agreeable effect. It was ſent to us from Cayenne, and is as ſmall as our cheſnut.

The DIVERS*.

LE PLONGEONS. *Buff.*

THOUGH many aquatic birds dive even to the bottom of the water in purſuit of their prey, the name of *Diver* has been appropriated to a ſmall family, diſtinguiſhed from the reſt by their ſtrait pointed bill, and their three fore toes connected together by an entire membrane, which throws a hem along the inner toe, from which the hind one is parted: their nails are alſo ſmall and pointed; their tail is extremely ſhort, and ſcarce viſible; their feet are very flat, and placed quite behind the body; laſtly, their leg is concealed in the lower belly, a diſpoſition well adapted for ſwimming, but almoſt incompatible with walking. In fact, the Divers, when on land, are obliged, like the grebes, to ſtand erect, and cannot maintain their balance: but in the water their motions are ſo nimble and prompt, that, the inſtant they perceive the flaſh of a gun, they plunge and eſcape the ball †.

* The general name of the Diver in Greek, is Αἰθυα: in Latin *Mergus*: in Hebrew and Perſian *Kaath*: in Arabic *Semag*: in Italian *Mergo, Mergone*: in German *Ducher, Duchent, Taucher*.

† "The Divers of Louiſiana are the ſame with ours, and when "they ſee the fire of the touch-pan, they dive ſo nimbly, that the "lead cannot hit them; for which reaſon they are called *lead-"eaters*." Le Page Dupratz, *Hiſt. de la Louiſiane*, tom. ii. p. 115.

Accordingly,

Accordingly, expert fowlers faſten a bit of paſte-board to their piece, in ſuch manner as to leave the aim free, and yet ſcreen from the bird the gleam of the priming.

We know five ſpecies of Divers, two of which, a greater and a leſſer, occur equally on the freſh waters of inland countries, and on the ſalt flood near the ſea-ſhore: The three other ſpecies ſeem to be attached wholly to the coaſts, particularly in the north.

The GREAT DIVER.

FIRST SPECIES.

Colymbus Immer. Linn. and Gmel.
Mergus Major. Briſſ.
Colymbus Maximus. Geſn. Aldrov. Ray, Johnſt. and Klein.
The Imber Diver. Lath.

THIS Diver is almoſt as large and as tall as the gooſe. It is known on the lakes of Switzerland; and the name *Fluder*, which it receives on that of Conſtance, alludes, according to Geſner's remark, to its laborious motion on land, ſtruggling at once with its wings and its feet. It never riſes but from the water; and in that element its motions are as eaſy as they are rapid.

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THE IMBER.

rapid. It dives to very great depths, and ſwims under water to the diſtance of an hundred paces without emerging to take breath: a portion of air included in its dilated wind-pipe ſupplies its reſpiration during this interval. The ſame is the caſe with other divers and grebes; they glide through the water freely in all directions; in it they find their food, their ſhelter, their aſylum: when the bird of prey hovers above them, or the fowler appears on the ſhore, they plunge for ſafety. But man, ſtill more formidable by his addreſs than by his ſtrength, prepares ſnares for them, even in the bottom of their retreat: a net or a line baited with a ſmall fiſh, allures the unwary bird; it ſwallows death with the repaſt, and periſhes in that element where it received birth; for its neſt is placed on the water amidſt the tall ruſhes.

Ariſtotle juſtly obſerves, that the Divers begin to breed in early ſpring, and that the gulls do not breed till the end of that ſeaſon, or the beginning of ſummer *. But Pliny, who often merely copies the philoſopher, has here injudiciouſly contradicted him, by employing the name *Mergus* to ſignify an aquatic bird which neſtles in trees †; a property which belongs to

* Hiſt. Animal. *lib.* v. 9.

† *Mergi & in arboribus pariunt*, lib. x. 32. He likewiſe confounds the Diver with certain gulls, when he attributes to it the habit of devouring the excrements of other birds. *Mergi ſoliti ſunt devorare quæ ceteræ reddunt*, lib. x. 47.

the

the cormorant and ſome other aquatic birds, but which has no relation to the Divers, ſince they neſtle at the foot of ruſhes.

Some obſervers have aſſerted that the Great Diver was very ſilent: yet Geſner aſcribes to it a ſingular and loud cry; but probably this is ſeldom heard.

Willughby ſeems to admit a variety, in which the back is of an uniform colour; whereas, in the ordinary kind, the upper ſurface is waved with light gray on a brown gray, and this brown, clouded and dotted with whitiſh, appears on the upper ſide of the head and neck, which is beſides ornamented below by a half collar tinged with the ſame colours, terminated with fine white on the breaſt and the under ſide of the body.

[A] Specific character of the *Colymbus Immer*: "Its body is "blackiſh above, waved with white, below entirely white."

The LITTLE DIVER.

SECOND SPECIES.

Colymbus Stellatus. Gmel.
Colymbus Maximus Caudatus. Will.
Mergus Minor. Briff.
The Speckled Loon. Alb.
The Speckled Diver. Penn. and Lath.

THIS Diver refembles the preceding in its colours, and has likewife all the fore fide of its body white: its back, and the upper fide of its neck and head, are blackifh-cinereous, entirely fprinkled with little white drops. The largeft of this kind meafure at the utmoft a foot nine inches from the tip of the bill to the end of the tail, and two feet to the extremity of the toes, and the alar extent is two feet and an half; whereas the preceding fpecies is two feet and an half from the bill to the nails, and four feet acrofs the wings. Their natural habits are nearly the fame.

The Little Divers are feen at all times on our pools, which they do not quit till the ice obliges them to flit to the rivers and brooks of running water: they depart in the night-time, and remove as little as poffible from their former haunts. It was remarked, even in the time of Ariftotle,

Ariſtotle, that they did not diſappear in winter*. That philoſopher alſo ſays, that they lay two or three eggs: but our ſportſmen make them to lay three or four, and ſay, that when a perſon approaches the neſt, the mother plunges into the water, and that the young ones juſt hatched throw themſelves after her. The ſwimming and diving of theſe birds are always attended with noiſe, and with a very quick agitation of their wings and tail. The motion of their feet impels them forward, not in the line of their body, but ſidewiſe in the diagonal. M. Hebert obſerved this in a captive Diver, which being held by a long ſtring, took always that direction: it appeared to have loſt nothing of its natural liberty: it was kept on a river, where it lived by catching ſmall fiſh.

* Hiſt. Animal. *lib.* v. 9.

[A] The ſpeckled Diver lays its eggs near the verge of maritime lakes: they are oval, duſky with ſome black ſpots, and as large as thoſe of a gooſe.

The SEA-CAT DIVER.

THIRD SPECIES.

THIS Diver, which is very like the little freſh-water Diver, was ſent to us from the coaſts of Picardy, which it frequents, particularly

larly in winter, and where it is called by the fifhers *cat-marin*, becaufe it eats much young fry. They are often caught in the nets fpread for the fcoter-ducks, with which they generally arrive; for they are obferved to retire in fummer, as if they fpent that feafon in more northern countries. Some, however, breed in the Scilly ifles on the rocks, which they gain by fpringing from the water, having taken advantage of a fwell: for, like the other Divers, they can hardly rife from the land *; nor can they even run but on the waves, which they rapidly graze in an erect attitude, the lower part of their body being immerfed.

This bird enters with the tide into the mouths of rivers. It prefers fmall fmelts, and the fry of the fturgeon and conger. As it fwims almoft as faft as other birds fly, and dives as well as fifh, it has every poffible advantage for feizing its fugitive prey.

The young ones, lefs dextrous and lefs experienced than the old, fubfift only on fhrimps; yet both are, at all feafons, extremely fat. M. Baillon, who has carefully obferved thefe Divers on the coafts of Picardy, and who has furnifhed

* "I one day found two of thefe Divers, which had been caft "afhore by the waves; they were lying on the fand, working their "feet and wings, and crawling with difficulty: I gathered them "like ftones, yet they were not wounded; and one of them thrown "up, flew, dived, and played on the water before my eyes." *Obfervation communicated by M. Baillon, of Montreuil-fur-mer.*

us with theſe details, ſubjoins, that the female is diſtinguiſhed by being two inches ſhorter than the male, which meaſures two feet three inches from the point of the bill to the end of the nails, and its alar extent three feet two inches: the plumage of the young ones, till moulting, is a ſmoky black, without any of the white ſpots ſprinkled on the back of the adults.

We ſhall refer to this kind, as a variety, a black-headed Diver, which Briſſon makes his fifth ſpecies, and applies to it the names given by Willughby and Ray, which refer only to the northern Diver.

It has been remarked, though not with regard to any particular ſpecies of Divers, that the fleſh of theſe birds is improved by living, in Lough Foyle, near Londonderry in Ireland, on a certain plant, whoſe ſtalk is ſoft, and almoſt as ſweet, it is ſaid, as a ſugar-cane.

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THE NORTHERN DIVER.

The IMBRIM, or GREAT NORTHERN DIVER.

FOURTH SPECIES.

Colymbus Glacialis. Linn. and Gmel.
Mergus Major Nævius. Briſſ.
Colymbus Maximus Stellatus. Sibb.
Colymbus Maximus Caudatus. Ray, Will. and Klein.
The Greateſt Speckled Diver, or Loon. Alb.
The Northern Diver *. Penn. and Lath.

IN the Feroe iſlands this Great Diver is called the *Imbrim*, and in the Orkneys *Embergooſe*. It is larger than a gooſe, being near three feet from the bill to the nails, and four feet over the wings: it is alſo remarkable by a furrowed collar about the neck, marked by ſmall longitudinal ſtripes, alternately black and white: the ground on which this belt lies is black, with green reflections on the neck, and violet ones on the head: the mantle is black, entirely ſprinkled with white ſpeckles; all the under ſide of the body is fine white.

* In Norwegian *Bruſen*: in Icelandic *Huubryre*, according to Anderſon, who ſays that this bird much reſembles the vultur by its bulk and its cries; but this pretended vultur is a merganſer.

 This

This Great Diver appears ſometimes in England in hard winters *; but at other times it never leaves the northern ſeas, and its uſual retreat is among the Orkneys, the Feroe iſlands, on the coaſts of Iceland, and near Greenland; for it is evidently the *Tuglek* of the Greenlanders †.

Some writers of the north, ſuch as *Hoierus*, phyſician at Bergen, have aſſerted that theſe birds make their neſts and lay their eggs under water; which is not even probable ‡: and the account inſerted in the Philoſophical Tranſactions §, that the Imbrim hatches her eggs by carrying them under her wings, appears to me equally fabulous. All that we can infer from theſe ſtories is, that this bird probably breeds on ſhelves or deſart coaſts, and that no obſerver has yet ſeen its neſt.

* Ray.—We received one that was killed this winter (1780) on the coaſt of Picardy.

† "The Tuglek," ſays Crantz, "is a diver of the bulk of a tur-"key-cock, and of the colour of a ſtare; its belly white, and its "back ſprinkled with white; its bill is ſtraight and pointed, an inch "thick, and four inches long; its length from the head to the tail "is two feet, and its alar extent two feet." *Hiſt. Gen. des Voyages, tom.* xix. *p.* 45.

‡ Klein juſtly refuſes to credit the report.

§ N° 473. p. 61.

[A] Specific character of the *Colymbus Glacialis*: "Its head "and neck are dark violet; a white interrupted bar on its throat "and neck." In the northern regions, every pair of theſe birds occupy a lake, and breed on the ſmall iſlets. The young defend themſelves courageouſly with their bills. The Greenlanders uſe the ſkins for cloathing, and the Eſquimaux deck their heads with the feathers.

The LUMME, or LITTLE DIVER of the NORTHERN SEA.

FIFTH SPECIES.

Colymbus Arcticus. Linn. Gmel. Sibb. and Will.
Mergus Gutture Nigro. Briff.
Mergus Arcticus fimpliciter. Klein.
The Black-throated Diver *. Edw. Penn. and Lath.

LUMME or *Loom* in Lapponic fignifies *lame*, alluding to the tottering pace of this bird when on land: it feldom however comes afhore, but fwims almoft conftantly, and breeds at the verge of the flood on defert coafts. Few have feen its neft, and the people of Iceland fay that it hatches its eggs under its wings in open fea †; which is not more probable than the incubation of the imbrim under water.

The Lumme is fmaller than the imbrim, and about the bulk of a duck; its back is black fprinkled with little white fquares; the throat is black, and alfo the fore fide of the head, of which the upper fide is covered with gray feathers; the top of the neck is clothed with fimi-

* In Swedifh and Lapponic *Loom* or *Lom:* in Greenlandic *Apa*, according to Anderfon, and *Moquo*, according to Edwards.

† Anderfon.

lar gray feathers, and ornamented behind by a long patch clouded with black, varying with violet and green: a thick down, like that of the ſwan, covers all the ſkin; and the Laplanders make winter bonnets of theſe fine furs *.

It appears that theſe Divers ſcarcely ever quit the northern ſeas; though, according to Klein, they viſit from time to time the coaſts of the Baltic, and are well known through the whole of Sweden †. Their principal abode is on the ſhores of Norway, Iceland, and Greenland: theſe they frequent the whole ſummer, and there breed their young, which they rear with ſingular care and ſolicitude. On this ſubject, Anderſon gives details which would be intereſting, were they all accurate. He ſays that they lay only two eggs, and that as ſoon as a young Lumme is able to quit the neſt, the parents lead it to the water, the one flying always above it to keep off the bird of prey, and the other below to receive it in caſe it ſhould fall; and that if notwithſtanding their aſſiſtance, the neſtling fall to the ground, the parents ruſh after it, and rather than forſake it, they ſuffer themſelves to be caught by men or eaten by foxes, which ever watch thoſe opportunities, and which, in thoſe bleak frozen regions, are conſtrained to turn all their ſagacity and wiles againſt the birds. This

* *Fauna Suecica*, and *Hiſt. Gen. des Voyages*, *tom.* XV. *p.* 309.
† *Fauna Suecica.*

author

author adds, that when the Lummes have once reached the ſea with their young, they return no more to land. He affirms even that the old ones which have accidentally loſt their family, or are paſt breeding, never reviſit the ſhore, but ſwim always in flocks of ſixty or a hundred. "If we throw a young one into the ſea before a "flock of Lummes, they will all gather round "it, and ſtrive to attend it; nay they will fight "about it till the victor leads it off: but if the "mother happen to intervene, the quarrel im- "mediately ceaſes, and the infant is conſigned "to her care."

On the approach of winter, theſe birds retire, and appear not again until the ſpring. Anderſon conjectures, that, ſhaping their courſe between the eaſt and the weſt, they arrive in America: and Edwards in fact admits that this ſpecies is common both to the northern ſeas of that continent and of Europe. We might add thoſe of Aſia; for the red-throated diver brought from Siberia, and repreſented under that name in our *Pl. Enl.* is exactly the ſame with that of Edwards, *pl.* 97, which this naturaliſt gives as the female Lumme from the unimpeached veracity of his correſpondent Iſham, a good obſerver, who ſent both cock and hen from Greenland.

When the Lummes viſit the coaſts of Norway, their different cries are interpreted by the inhabitants to preſage fine weather or rain.

rain *. This is probably the reaſon why they ſpare the lives of theſe birds, and are concerned to find them taken in their nets †.

Linnæus diſtinguiſhes a variety in this ſpecies ‡, and ſays with Wormius, that the Lumme makes its neſt flat on the beach at ſea-mark: on that head, Anderſon contradicts himſelf. The Spitzbergen *Lumb* of Martens appears, according to Ray's obſervation, to be different from the Lummes of Greenland and Iceland, ſince *its bill is hooked:* yet its attachment to its young, and the manner in which it leads them to the ſea, defending them from the bird of prey, ſhow a great analogy to theſe birds in its natural habits §. With regard to the *Loms* of the navigator

* "When it foreſees abundant rains, fearing that its neſt will "be overflowed, it ſtrikes the air with a querulous ſound; on the "contrary, when it expects fine weather, it chears its young with "loud calls and another more grateful ſound."—*Wormius.*

† *Idem.*

‡ "A variety, whoſe head and ſides of its neck are cinereous; "the hind part of its neck marked with ſmall black and white lines; "its back brown, without the white dots; its breaſt ſpotted before "with cinereous and white." *Fauna Suecica,* N° 121.

§ "The bill of the *Lumb* reſembles much that of the diver pigeon, except that it is ſomewhat harder and more hooked. "This bird is as large as a middling duck . . . the young are "commonly ſeen near the old ones, which inſtruct them to ſwim "and dive; the old tranſport their brood from the rocks into the "water, by taking them in their bill; the burgomaſter, which is a "bird of prey, ſeeks to carry them off . . . but theſe birds are "ſo attached to their young, that they will rather be killed than "forſake them, and they defend them as a hen does her chickens; "they cover them as they ſwim . . . they fly in large flocks, and "their

gator Barentz, they may be the ſame with our Lummes, which might eaſily frequent Nova Zembla *.

" their wings are ſhaped like thoſe of ſwallows; in flying they ex-" ercife theſe extremely . . . their cry is very diſagreeable, and " nearly like that of a raven, nor is there any bird that cries more " than this, unleſs perhaps the *winter rotger*."—*Recueil des Voyages du Nord, tom.* ii. *p.* 95.

* " The name of *Loms*, which Barentz gives to this bay (in the " Icy Sea, under Nova Zembla) was taken from a ſpecies which " abounds there, and which, according to the ſignification of the " Dutch word, are exceſſively unwieldy; their body is ſo large in " compariſon of their wings, that one is ſurprized that they can " raiſe ſo cumbrous a weight. Theſe birds make their neſts on " craggy mountains, and cover only one egg at a time. The ſight " of men diſturbs them ſo little that we may take one in its neſt, " and yet the reſt will not fly away, or even ſhift their place."—*Hiſt. Gen. des Voyages, tom.* xv. *p.* 104.

[A] Specific character of the *Colymbus Arcticus*: " Its head is " hoary, the under ſide of its neck dark violet; a white inter-" rupted bar."

The MERGANSER.

Le Harle *. *Buff.*

FIRST SPECIES.

Mergus Merganſer. Linn. and Gmel.
Merganſer. Geſn. Ald. Johnſt. Will. Sibb. Briſſ. &c.
The Gooſander, male; *Dun-diver, or Sparling-fowl,* female. Will.

"THIS bird," ſays Belon, "commits as "much havock in a pool as a beaver;" and hence, he adds, it was termed *bievre.* But the old naturaliſt was here deceived with the vulgar, for the beaver does not eat fiſh; and the *otter* is the animal to which this *icthyophagous* bird ſhould be compared.

The Merganſer is of a middle ſize, between the duck and the gooſe: but in its ſtature, its plumage, and its ſhort flight, is more allied to the duck. Its name, *diver-gooſe, (mergus-anſer)* ſeems to have been formed by Geſner injudiciouſly; for the reſemblance of its bill to that of the

* In German *Meer-rach, Weltch-eent:* on the lake of Conſtance *Gan* or *Ganner:* on the lake Maggiore *Garganey:* in Poliſh *Kruk morſki:* in Norwegian *Fiſk-and, Mort-and:* in Swediſh *Wrakfogel, Kjorkfogel, Ard, Skraka:* in Daniſh *Skalleſluger:* in Icelandic *Skior-and:* in the language of Greenland *Pekſok.*

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THE GOOSANDER.

the diver, on which that appellation reſts, is very imperfect. The bill is nearly cylindrical, and ſtrait to the point, like that of the diver; but differs inaſmuch as the point is bent in the faſhion of a crooked nail, with a hard, horny ſubſtance; it differs alſo becauſe the edges are beſet with indentings reflected backwards: the tongue is rough, with hard *papillæ* turned backwards like the indentings on the bill, which ſerve to hold the ſlippery fiſh, and even to draw it into the throat of the bird: accordingly, with a gluttonous voracity, it ſwallows fiſh much larger than can enter entire into its ſtomach: the head firſt lodges in the œſophagus, and is digeſted before the body can deſcend.

The Merganſer ſwims with all its body ſubmerged, and only its head out of the water *: it dives deep, remains long under water, and traverſes a great ſpace before it again appears. Though its wings are ſhort, it flies rapidly, and ofteneſt it ſhoots above the ſurface of the water †: it then appears almoſt entirely white, and is therefore denominated *harle blanc* in ſome parts of France, as in Brie, where however it is rare. Yet the fore ſide of its body is waſhed with pale yellow: the upper ſide of the neck and all the head are black, changing by reflections into green; and the feathers, which are ſlender, ſilky, long, and briſtled up from the nape

* Aldrovandus and Wormius.

† Rzyczynſki.

to the front, augment much the bulk of the head: the back consists of three colours, black on the top and on the great coverts of the wings, white on the middle ones and most of the coverts, and handsomely fringed with gray upon white at the rump: the tail is gray: the eyes, the feet, and part of the bill, are red.

The Merganser, we have seen, is a very beautiful bird; but its flesh is dry and unpleasant food *. The form of its body is broad and sensibly flattened on the back. Its wind-pipe is observed to have three swellings, the last of which, near the bifurcation, includes a bony labyrinth †: this apparatus contains the air which the bird respires under water ‡. Belon says also, that he remarked that the tail of the Merganser was often rumpled and turned up at the end, and that it perches and builds its nest, like the cormorant, on trees or rocks: but Aldrovandus asserts, with more probability, that it breeds on the shore, and never quits the water. We have not been able to ascertain this fact; these birds appear only at distant intervals in France, and from all the accounts which we have received, we can only gather that they occur in different places, and always in win-

* Belon relates the vulgar proverb, *He who would regale the devil, might serve him with merganser and cormorant.*

† Willughby.

‡ Belon.

ter *. In Switzerland their appearance on the lakes is ſuppoſed to forebode a ſevere winter: and though they muſt be known on the Loire, ſince there, according to Belon, they received the name of *harle* or *herle*, that obſerver himſelf intimates, that they retire in winter to more ſouthern climates, for he ſaw them entering from the north into Egypt; yet he ſays, that in every other ſeaſon except winter they are found on the Nile, which is difficult to reconcile.

The Merganſers are not more common in England than in France †; yet they penetrate into Norway ‡, Iceland §, and perhaps ſtill farther north. The *Geir-fogel* of the Icelanders, which Anderſon improperly calls a vulture, is a Merganſer; at leaſt if its voracity may entitle it to the appellation of ſea vulture. But it ſeems theſe birds do not conſtantly reſide on the coaſt of Iceland; ſince every time they arrive, the inhabitants expect ſome great event.

The female Merganſer is uniformly ſmaller conſiderably than the male: it differs alſo, like moſt of the water birds, by its colours; its head

* Merganſer killed the 15th of February 1778, at Montbard, on a pool, where it had been ſeen for ſeveral days.—Merganſer killed near Croiſie, on the ſalt marſhes.—*Letter of M. de Querhoënt, of the 13th of February.*—Merganſer killed at Bourbon-lancy, and ſent to M. Hebert in March 1774.

† Charleton.

‡ Muller.

§ Wormius, Charleton.

is

is rufous, and its mantle gray *. Briſſon makes it his ſeventh ſpecies.

* It is the female which Belon ſtyles the *beaver*. Linnæus, in the twelfth edition of his *Syſtema Naturæ*, under the name *Mergus-Caſtor*.

[A] Specific character of the *Mergus-Merganſer*: "Its creſt "longitudinal and ſomewhat erect; its breaſt whitiſh and ſpotleſs; "its tail-quills cinereous, their ſhaft blackiſh." Linnæus ſays, that theſe birds breed ſometimes on trees and ſometimes between ſtones, and lay fourteen eggs. They paſs the whole year in the Orknies, yet never appear in England except in hard winters. They are found not only in the north of Europe, but in the greater part of North America.

The CRESTED MERGANSER.

LE HARLE HUPPE'. *Buff.*

SECOND SPECIES.

Mergus-Serrator. Linn. and Gmel.
Serrator Cirrhatus. Klein.
Mergus Criſtatus. Briſſ.
The Serula. Will.
The Leſſer Dun Diver. Penn.
The Leſſer Toothed Diver. Morton.
The Red-breaſted Merganſer. Lath.

THE preceding ſpecies had only a tuft; this is adorned with a diſtinct and well-formed creſt, conſiſting of ſlender, long plumules, directed backwards from the occiput: it is about the

the ſize of a duck: its head and the top of its neck are of a violet black, changing into gold green: the breaſt is rufous variegated with white; the back is black; the rump and the flanks are ſtriped in zig-zags with brown and light gray; the wing is variegated with black, with brown, with white, and with cinereous; on both ſides of the breaſt, near the ſhoulders, there are pretty long white feathers edged with black, which cover the pinion when the wing is cloſed; the bill and feet are red. The female is diſtinguiſhed from the male by its head being of a duller rufous, its back gray, and all the fore ſide of its body white, faintly tinged with fulvous on the breaſt.

According to Willughby, this ſpecies is very common on the lagoons of Venice; and ſince Muller affirms that it is found in Denmark and Norway, and Linnæus, that it alſo inhabits Lapland *, it probably frequents the intermediate countries. In fact, Schwenckfeld aſſures us, that this bird paſſes into Sileſia, where it is ſeen in the beginning of winter on the pools among the mountains. Salerne ſays that it is very common on the Loire; but from his manner of ſpeaking of it, he ſeems to have obſerved it very inattentively.

* The *Knipa* of Schoeffer, *Fauna Suecica.*

[A] Specific character of the Creſted Merganſer, *Mergus-Serrator*: "Its creſt is hanging; its breaſt tawny and variegated; "its

"its neck white; its tail-quills brown, variegated with cinereous." In Iceland theſe birds are called *Vatus-ond*. They appear in great flocks during the ſummer in Hudſon's Bay, and on the Siberian lakes.

The PIETTE, or LITTLE CRESTED MERGANSER.

THIRD SPECIES.

Mergus Albellus. Linn. and Gmel.
Mergus Varius. Geſner.
Mergus Rheni. Aldrov. Ray, &c.
The Smew, or White Nun. Penn. and Lath.

THIS is a handſome little Merganſer with a pied plumage: it is ſometimes called the *Nun (Religieuſe)* no doubt becauſe of the neatneſs of its fine white robe, its black mantle, its head hooded with white unwebbed feathers, diſpoſed like a chin-piece, and raiſed in the form of a band, which interſects behind a little veil lappet of a dull green-violet: a black half collar on the top of the neck compleats the modeſt and elegant apparel of this little winged Nun. It is alſo well known by the denomination *Piette* * on the rivers Are and Somme in Picardy, where is not a peaſant, ſays Belon, but knows its name. It is rather larger than the

* From *pietter, to trip lightly.*

garganey,

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THE SMEW MERGANSER.

garganey, but ſmaller than the morillon; its bill is black, and its feet of a lead gray: the extent of black and white on its plumage is very ſubject to vary, inſomuch that it is ſometimes almoſt all white. The female is not ſo beautiful as the male; it has no creſt; its head is rufous, and its mantle is gray.

[A] Specific character of the Smew, *Mergus-Albellus*: "Its "creſt is hanging; the back of its head black; its body white; "its back and temples black; its wings variegated."

The MANTLED MERGANSER.

FOURTH SPECIES.

Mergus Serrator, var. 1. Gmel.
Mergus Niger. Geſner and Johnſton.
Merganſer Leucomelanus. } Briſſon.
Merganſer Niger. }
Anas Longiroſtra tertia. } Schwenckfeld.
——— *ſexta*. }

WE rank theſe birds together, becauſe they differ leſs than the male and female in this genus; eſpecially as they are nearly of the ſame ſize. Belon, who has deſcribed one under the name of *tiers (third)* ſays that it was ſo called as being intermediate, or *the third between the duck and the morillon*, and that its wings imitate, by their motley colours, the variety of the morillon's

rillon's wings: he was miſtaken however in joining his *tiers* with this bird, ſince its bill is entirely different from that of the morillon; and its bulk approaches more to that of the duck. This deſcription exactly ſuits then the *Mergus Leucomelanus (black and white merganſer)* of Briſſon; it alſo agrees with his *Mergus Niger*, (or *black merganſer)* except that the neck of this laſt has a bay caſt, and that its tail is black: the bill and feet of both are red. Schwenckfeld ſays, that the former are ſeldom ſeen in Sileſia; but he does not by that expreſſion inſinuate that the latter is more common there, while he remarks that ſome of theſe appear on the rivers in March on the breaking up of the ice.

The STELLATED MERGANSER.

LE HARLE ETOILE', *Buff.*

FIFTH SPECIES.

Mergus Minutus. Linn.
Merganſer Stellatus. Briſſ. and Klein.
Mergus Albus. Geſner and Johnſton.
Mergus Glacialis. Aldrov. Will. and Charl.
The Weeſel Coot. Albin.
The Minute Lough Diver. Penn.

THE great difference between the male and female in this genus occaſions much confuſion in the nomenclature: and we ſtrongly ſuſpect

ſuſpect that if the Stellated Merganſer were better deſcribed and better known, it would be found to be the female of ſome of the foregoing ſpecies. Willughby was of this opinion, and regarded it as the female of the mantled Merganſer; and indeed it has the peculiar property of that bird, being found ſometimes entirely white. Briſſon gives it the epithet *ſtellated*, from a white ſpot, figured like a ſtar, which is placed, he ſays, below a black ſpot that ſurrounds the eyes. The upper ſide of the head is bay colour, the mantle blackiſh brown, all the fore ſide of the body is white, and the wing is partly white, partly black; the bill is black, or lead-coloured, as in the mantled Merganſer; and theſe two birds are nearly of the ſame ſize. Geſner ſays, that this Merganſer is called in Switzerland the *Ice Duck*, becauſe it does not appear on the lakes till hard froſt ſets in.

[A] Specific character of the *Mergus Minutus*: "Its head is "ſmooth and gray, a black bar on its eye, a white ſpot under the "eye." In winter, theſe birds viſit the ſhores of our iſland, from the northern regions.

The CROWNED MERGANSER.

SIXTH SPECIES.

Mergus Cucullatus. Linn. and Gmel.
Merganſer Virginianus Criſtatus. Briſſ.
Serrator Cucullatus. Klein.
The Wind-Bird. Will.
The Round-creſted Duck. Cateſby and Edw.
The Hooded Merganſer. Penn. and Lath.

THIS Merganſer, which is found in Virginia, is very remarkable for a fine edged crown on its head, black in the circumference, and white in the middle, formed of feathers elevated to a diſk; which has a fine effect, but appears to advantage only in the living bird. Its breaſt and belly are white; the bill, the face, the neck, and the back, are black; the quills of the tail and wings are brown; the innermoſt in the wings are black, and marked with a white ſtreak. This bird is nearly as large as a duck: the female is entirely brown, and its creſt is ſmaller than that of the male. Fernandez has deſcribed both under the Mexican name *Ecatototl*, with the epithet *wind-bird*, without mentioning the reaſon. Theſe birds are found in Mexico and Carolina, as well as in Virginia, and haunt the rivers and pools.

[A] Specific character of the *Mergus Cucullatus*: "Its creſt is "ball-ſhaped and white on both ſides; its body brown above, and "white below." It winters in Virginia and Carolina.

The PELICAN.

LE PELICAN. *Buff.*

Pelecanus Onocrotalus. Linn. and Gmel.
Onocrotalus. Gesner. Aldrov. Will. Johnst. Briss. &c.
The White Pelican. Edw. Penn. and Lath.

THE Pelican * is more interesting to the naturalist by its greater stature and the large sac under its bill, than by the fabulous celebrity of its name, sacred among the religious emblems of ignorant nations. It has been employed to re-

* In Greek Πελεκανος, Πελεκινος, Πελεχινος, in different authors, from Πελεκυς, *a hatchet*, on account of its broad bill: it had also the name Ονοκροταλος, from ονος an ass, and κροταλον a rattle, because of the gurgling in its throat. The Romans adopted that term; but, according to Verrius Flaccus and Festus, they anciently called it *Truo*. In Hebrew it was denominated *Kakik:* in Chaldean *Catha:* in Arabic *Kuk* and *Alhausal,* meaning *gullet:* in Persian *Kik Tacab,* (which signifies *water-carrier)* or *Miso (sheep,* on account of its bulk): in Egyptian *Begas* or *Gemel-el bahr (water camel):* in Turkish *Sackagusch:* in the old Vandal language *Bukriez:* in Spanish *Groto:* in Italian *Agrotto:* at Rome *Truo;* and near Sienna and Mantua *Agrotti:* in the Alps of Savoy *Goettreuse,* because its bag resembles the *goitres* to which the mountaineers are subject: in German *Meer-gans, Schnee-gans (sea-goose, snow-goose):* in Austria *Ohne-Vogel* (the *awme,* or *tierce-bird):* in Polish *Bak, Bak Cudzoziemski:* in Russia *Baba:* in modern Greek *Toubano:* in the French West India islands *Grand Gosier (great gullet):* in Mexico *Atototl*; and by the Spanish settlers *Alcatraz:* in the Philippine islands *Pagala:* by the negroes of Guinea *Pokko:* by the Siamese *Noktho:* in old French *Livane.*

 present

present maternal tenderness, tearing its breast to nourish its languishing family with its blood. This tale, which the Egyptians had before related of the vulture *, cannot apply to the Pelican, which lives in abundance †, and even enjoys an advantage over the other piscivorous birds, being provided with a bag for storing its provisions.

The Pelican equals, or even surpasses, the bulk of the swan ‡, and would be the largest of all the aquatic birds §, were not the albatross thicker, and the flamingo much taller on its legs. Those of the Pelican, on the contrary, are very low; but its wings are so broad as to extend eleven or twelve feet ||. It therefore supports itself easily, and for a length of time, in the air: it balances itself with alertness, and never changes its place but to dart directly downwards on its prey, which cannot escape; for the violence of the

* Horus Apollo.

† St. Augustine and St. Jerome seem to be the authors of the application of this fable, originally Egyptian, to the Pelican.

‡ Edwards reckons the one which he describes twice as large as the swan. Ellis speaks of one more than double the bulk of a large swan.

§ "I sat out on the second of October for the island of Griel by "this channel, which is parallel to the main branch of the Niger . . . "it was entirely covered with Pelicans, which were sailing gravely "like swans on the water; they are indisputably, after the ostrich, "the largest birds of the country." Adanson, *Voyage au Senegal*, *p.* 136.

|| The Pelicans described by the academicians had eleven feet of alar extent, which, as they remark, is double that of the swans and of the eagles.

dash,

dash, and its wide-ſpread wings, which ſtrike and cover the ſurface of the water, make it boil and whirl *, and at the ſame time ſtun the fiſh, and deprive it of the power of flight †. Such is their mode of fiſhing when alone; but in large flocks they vary their manœuvres, and act in concert: they range themſelves in a line, and ſwim in company, forming a large circle, which they contract by degrees to incloſe the fiſhes ‡, and they ſhare the capture at their convenience.

Theſe birds ſpend in fiſhing the hours of the morning and evening, when the finny tribe are moſt in motion; and chuſe the places where they are moſt plentiful. It is amuſing to behold them ſweeping the water, riſing a few fathoms above it, falling with their neck extended and their ſac half full; then aſcending with effort to drop again §, and continuing this exertion till their wide bag is entirely filled. Now they retire to eat, and digeſt at leiſure on ſome cliffs, where they remain tranquil and drowſy till evening ‖.

It appears to me, that this inſtinct of the Pelican, of not ſwallowing its prey at firſt, but collecting a proviſion, might be turned to account; and that, like the cormorant, it might be

* *Petr. Martyr.* Nov. Orb. decad. i. lib. 6.
† Labat and Dutertre.
‡ Adanſon, *Voyage au Senegal, p.* 136.
§ Nieremberg, *Hiſt. Nat. lib.* x. *p.* 223.
‖ Labat and Dutertre.

made a domeſtic fiſher: indeed travellers affirm, that the Chineſe have actually ſucceeded *. Labat relates, that the ſavages trained a Pelican, which they diſpatched in the morning, after having ſtained it red with *rocou* †, and that it returned in the evening to their hut with its ſac full of fiſh, which they made it to diſgorge.

This bird muſt be an excellent ſwimmer; its feet are completely webbed, its four toes being connected by a ſingle piece of membrane: this ſkin and the feet are red or yellow, according to the age ‡: and it ſeems, as the Pelican grows old, to aſſume that fine, ſoft, and almoſt tranſparent roſy tint, which gives its white plumage the luſtre of a varniſh.

The feathers on its neck are only a ſhort down; thoſe on the nape are longer, and form a ſort of tuft; its head is flat at the ſides; its eyes are ſmall, and placed in two broad naked cheeks; its tail is compoſed of eighteen quills; the colours of its bill are yellow and pale orange on a gray ground, with ſtreaks of bright red on the middle and near the extremity; this bill is flattened above like a broad blade, with a longi-

* See Voyage de Pirard, *Paris*, 1619. *tom.* i. *p.* 376. But Pirard is miſtaken when he thinks that this bird is peculiar to China.

† Probably the ſame with the *puccoon*, employed by the Indians to heighten their copper complexion, and held in great eſtimation among them. It is the root of the *Sanguinaria Canadenſis*, a low herbaceous plant, which bears a fine white flower in the ſpring, and is ſcattered profuſely in the American foreſts.—*T.*

‡ Aldrovandus.

tudinal

tudinal ridge, terminating in a hook; the inſide of this blade, which makes the upper mandible, has five protuberant wrinkles, of which the two outer form the cutting edges; the lower mandible conſiſts only of two flexible branches, which accommodate themſelves to the extenſion of the membranous pouch attached to them, and which hangs below as a ſac in faſhion of a bow-net. This pouch can hold more than twenty quarts of liquid*: it is ſo wide and ſo long, that a perſon may put his foot in it †, or thruſt his arm as far the elbow ‡. Ellis ſays, that he has ſeen a man cover his head with it §; which will not, however, make us credit what Sanctius ‖ ſays, that one of theſe birds dropt in the air a negro child, which it had carried up in its ſac.

This large bird appears ſuſceptible of ſome education, and even of a certain cheerfulneſs, notwithſtanding its weight ¶. It has nothing ſa-

* "The length of the bill of the Pelican which I meaſured was "more than a foot and half, and its ſac contained near twenty-"two pints of water." (Equal to forty-four Engliſh wine pints. *T.*) Adanſon, *Voyage au Senegal, p.* 136.

† Belon.

‡ Geſner.

§ This is commonly exhibited by the keepers of wild beaſts in London.—*T.*

‖ In Aldrovandus, *tom.* iii. *p.* 50.

¶ Belon.—"It was diverting to ſee, when we ſet upon it the "boys or our dogs, how admirably it defended itſelf, ruſhing with "impetuoſity on its antagoniſts, and ſtriking them neatly with its "bill, which they equally repaid; ſo that it looked as if they were "beating two ſticks againſt each other, or playing with clatter-"bones." *Voyage en Guinée, par Guillaume Boſman, Utrecht,* 1705. *Lettre* xv.

vage, but soon becomes familiar with man *. Belon saw one in the isle of Rhodes, which walked freely through the town; and Culmann, in Gesner, relates the noted story of the Pelican which followed the emperor Maximilian, flying over the head of his army when on a march, and rising sometimes so high as to seem like a swallow, though it measured fifteen Rhenish feet across the wings.

This vast power of flight would be astonishing in a bird that weighs twenty-four or twenty-five pounds, were it not wonderfully assisted by the great quantity of air with which its body is inflated, and also by the lightness of its skeleton, which exceeds not a pound and half; its bones are so thin, that they are somewhat transparent, and Aldrovandus asserts that they have no marrow. It is no doubt owing to the nature of these solid parts, which are slow in ossifying, that the Pelican enjoys its great longevity †: even in captivity it has been observed to live longer than most other birds ‡.

* Rzaczynski speaks of a pelican kept fourteen years at the court of Bavaria, which was very fond of company, and seemed to take singular pleasure in hearing music. *Auctuar. p.* 399.

† Turner speaks of a tame Pelican that lived fifty years. The one mentioned by Culmann attained the age of fourscore; and in its latter years it was maintained by order of the emperor, at the expence of four crowns a day.

‡ Of a great number of Pelicans kept in the menagerie at Versailles, none have died in the space of twelve years; yet during that time some of every other species of animal has died. *Memoires de l'Academie des Sciences, p.* 191.

The

The Pelican, though not entirely foreign, is very rare in our climates, eſpecially in the interior provinces. We have in our cabinet the bodies of two which were killed, the one in Dauphiné, and the other on the Saone *. Geſner ſpeaks of one that was taken on the lake of Zurich, and was regarded as an unknown bird †. It is not common in the north of Germany ‡, though great numbers occur in the ſouthern provinces watered by the Danube §: this noble river was an ancient haunt of theſe birds; for Ariſtotle, ranging the Pelicans with ſome gregarious kinds, the crane and the ſwan, ſays, that they depart from the Strymon, and waiting for each other at the paſſage of the mountains, they all alight together, and neſtle on the banks of the Danube ||. Theſe ſtreams, therefore, ſeem to bound the countries where their flocks advance from north to ſouth in our continent: and Pliny muſt have been ignorant of this route, when he repreſented them as coming from the northern extremity of Gaul ¶: for they are ſtrangers there, and ſtill more in Sweden and the arctic tracts, at leaſt if we judge from the ſilence of their naturaliſts **;

* M. de Piolenc ſent us one which he had killed in a marſh near Arles, and M. Lottinger another from a pool between Dieuze and Sarreburg.

† Aldrovandus, *tom.* iii. *p.* 51.

‡ Schwenckfeld relates, that one was caught in 1585, at Breſlaw.

§ Rzaczynſki.

|| Hiſt. Animal. *lib.* viii. 12.

¶ Hiſt. Nat. *lib.* x.

** Linnæus, Muller, Brunnich.

the

the account which Olaus Magnus gives of the ancient *onocrotalus* being only an ill-digeſted compilation. Nor does it ſeem to frequent England, ſince the authors of the Britiſh Zoology do not inſert it in their work; and Charleton relates, that in his time there were Pelicans in Windſor Park, which had been ſent from Ruſſia. In fact, they are found, and even pretty often, in Red Ruſſia, and in Lithuania, as well as in Volhinia, in Podolia, and in Pokutia, as Rzaczynſki teſtifies: but they extend not to the moſt northern parts of Muſcovy, as Ellis pretends. In general, theſe birds ſeem to affect more the warm than the cold climates. One of the largeſt ſize, weighing twenty-five pounds, was killed in the iſland of Majorca, near the bay of Alcudia, in June 1773*. They appear regularly every year on the lakes of Mantua and Orbitello; and from a paſſage of Martial we may infer that they were common in the territory of Ravenna †. They are found alſo in Aſia Minor ‡, in Greece §, and in many parts of the

* *Journal Hiſtorique & Politique*, 20 *Juillet* 1773.

† *Turpe Ravennatis guttur onocrotali.*

‡ "*Onocrotales* feed in a lake which is above the city of Antioch." *Belon.*

§ "We killed with ſtones (near Patras) one of thoſe large birds "which we call *pelicans*, the Latins *onocrotali*, and the modern Greeks "*taubano*. I know not whether the cold hindered it from riſing: "it had a pouch under its bill, into which we poured more than fifteen quarts of water. The Greeks ſay that it carries water to "the mountains for its young. It is very common in thoſe parts, as "well

the Mediterranean and the Propontis. Belon even obferved at fea their paffage between Rhodes and Alexandria; they flew in bodies from north to fouth, fhaping their courfe towards Egypt: and the fame traveller enjoyed a fecond time this fight, near the confines of Arabia and Paleftine. Laftly, voyagers tell us, that the lakes of Judea and of Egypt, the banks of the Nile in winter, and thofe of the Strymon in fummer, feen from the heights, appear whitened by the multitude of Pelicans which cover them.

When we collect the teftimonies of the various navigators, we fee that the Pelicans inhabit all the fouthern countries of our continent, and that they occur, with little difference, and in ftill greater numbers, in the correfponding parallels in the new world. They are very common in Africa, on the fides of the Senegal, and of the Gambia, where the negroes call them *pokko* *: the great tongue of land, which bars the mouth of the firft of thefe rivers, is filled with them †. They are found likewife at Loango, and on the coafts of Angola ‡, of Sierra Leona §, and of Guinea ‖: on the bay of Saldana they are intermingled

" well as on the coaft of Smyrna." *Wheeler and Spon's Travels into Dalmatia.*

* Moore; *Hift. Gen. des Voy. tom.* iii. *p.* 304.—Voyage de le Maire aux Canaries, *Paris*, 1695, *p.* 104.

† Brue; *Hift. Gen. des Voy. tom.* ii. *p.* 488.

‡ Pigafetta.

§ Finch; *Hift. Gen. des Voy. tom.* iii. *p.* 226.

‖ Voyage de Degenes, *Paris*, 1698, *p.* 41.

with a multitude of birds, which ſeem, on that ſhore, to fill the air and the ſea *. They occur at Madagaſcar †, at Siam ‡, in China §, at the iſles of Sunda ||, and at the Philippines ¶, eſpecially on the fiſheries of the great lake of Manilla **. They are ſometimes met with at ſea ††: And laſtly, they have been ſeen on the remote lands in the Indian ocean, as at New Holland ‡‡, where Captain Cook ſays they are extremely large.

In America, the Pelicans are found from the Antilles §§ and *Terra Firma* ||||, the iſthmus of Panama ¶¶, and the bay of Campeachy ***, as far as Louiſiana †††, and the country adjoining to

* Downton; *Hiſt. Gen. des Voy. tom.* ii. *p.* 46.

† Cauche; *Paris* 1651, *p.* 136.

‡ Tachard; *Hiſt. Gen. des Voy. tom.* ix. *p.* 311.

§ Pirard.

|| Piſon.

¶ Philoſophical Tranſactions, N° 285.

** Sonnerat.

†† "On the 13th of December, after having paſſed the Tropic, "many birds viſited us; there were a great number of Pelicans "*(grand goſiers)*." *Voyage de le Guat, Amſterdam,* 1708, *tom.* i. *p.* 97.

‡‡ *Hiſt. Gen. des Voy. tom.* xi. *p.* 221.

§§ Dutertre, Labat, Sloane. "In 1656, in the month of September, there was a great mortality among theſe birds, particularly the young ones; for all the coaſts of the iſlands of St. Alouſia, of St. Vincent, of Becouya, and of all the Grenadines, were "ſtrewed with the dead carcaſes." Dutertre, *Hiſt. Gen. des Antilles, tom.* ii. *p.* 271.

|||| Oviedo.

¶¶ Wafer.

*** Dampier.

††† *Hiſt. Gen. des Voy. tom.* xiv. *p.* 456.

Hudſon's

Hudſon's Bay *. They are ſeen alſo on the inhabited iſles and inlets near St. Domingo †; and in greater numbers on thoſe ſmall iſles clothed with the fineſt verdure, which lie in the vicinity of Guadaloupe, and which ſeem to be occupied as the retreat of different ſpecies of birds: one of theſe iſles has even been called *the iſle of Pelicans (l'île aux grand-goſiers ‡)*. They augment alſo the flocks of birds which inhabit the iſland of *Aves* §: the coaſt of the Sambales, which abounds with fiſh, attracts them in great numbers ‖: in that of Panama, they are ſeen to alight in bodies on the banks of pilchards left at ſpring tides: And laſtly, all the ſhoals and adjacent iſlets are to ſuch a degree covered with theſe birds, that their fat is melted for oil ¶.

The Pelican fiſhes in freſh water as well as in the ſea. We need not, therefore, be ſurprized to find it on the large rivers; but, what is ſingular, it does not confine itſelf to the contiguous, low, and wet grounds, but it frequents alſo the drieſt countries, ſuch as Arabia and Perſia **, where it is ſtiled *water-carrier* ††. As it is obliged to place its neſt remote from the fountains or wells where the caravans halt, it has been obſerved to carry freſh water in its pouch from a great diſtance to its young: and the good

* *Hiſt. Gen. des Voy. tom.* xiv. *p.* 456.

† *Note communicated by the Chevalier Deſhayes.*

‡ Dutertre. § Labat. ‖ Wafer.

¶ Oviedo. ** Chardin. †† *Tacab.*

Muſſulmans

Muſſulmans ſay, very piouſly, that God ordained this bird to inhabit the deſert, in order to provide drink for the parched pilgrims who journey towards Mecca, as in ancient times he ſent the raven to feed Elias in the wilderneſs *. Hence the Egyptians, alluding to the manner in which this large bird keeps the water in its bag, have ſtiled it the *river camel* †.

We muſt not confound the *Barbary Pelican*, mentioned by Dr. Shaw, with the real Pelican, ſince this traveller ſays that it is not larger than a lapwing. The Pelican of Kolben is only the ſpoon-bill. Pigafetta diſtinguiſhed well the Pelican on the coaſt of Angola, but was miſtaken in beſtowing that name on a bird of Loango with tall legs like the heron ‡. We doubt much alſo whether the *alcatraz*, which ſome travellers ſay that they have ſeen in the open ſea between Africa and America §, be our Pelican; though the Spaniſh inhabitants of the Philippines and of Mexico have given it that appellation: for the Pelican ſtrays little from the coaſts, and when met with at ſea it is regarded as a ſign of the proximity of land ‖.

Of the two names *pelecanus* ¶ and *onocrotalus* **, applied

* Chardin.

† *Gemel el Bahr*. Vanſleb. *Voyage en Egypte, Paris*, 1677.

‡ *Hiſt. Gen. des Voy. tom.* iv. *p.* 588.

§ Id. *tom.* i. *p.* 448.

‖ Sloane.

¶ Ariſtotle, *lib.* ix. 10.

** Pliny, *lib.* x. 47.

applied by the ancients to this large bird, the latter refers to its ſtrange voice, which they compared to the braying of an aſs. Klein ſuppoſes that it makes this noiſe with its throat plunged in the water; but this idea ſeems to be borrowed from the bittern, for the Pelican utters its raucous cry far from the water, and ſcreams loudeſt in open air. Ælian deſcribes and accurately characterizes the Pelican under the name of Κηλη *; but I cannot imagine why he repreſents it as an Indian bird, ſince it is found now, and undoubtedly was found formerly, in Greece.

The firſt name *pelecanus* or *pelicanus* has miſled the tranſlators of Ariſtotle, and even Cicero and Pliny: they have rendered it by the word *platea*, which would confound the *Pelican* with the *ſpoon-bill*. When Ariſtotle ſays that the *pelecanus* ſwallows thin ſhell-fiſh and caſts them up half-digeſted, in order to ſeparate the meat which they contain, he imputes to it a habit which agrees better with the ſpoon-bill, conſidering the ſtructure of its *æſophagus*: for the pouch of the Pelican is not a ſtomach where digeſtion is begun; and Pliny inaccurately compared the manner in which the *onocrotalus* ſwallows and brings up its food to the proceſs carried on in ruminating animals. "There is "nothing here," M. Perrault very judiciouſly

* This word ſignified any tumor, but more particularly a ſwelling on the throat.

remarks,

remarks, " but what enters into the general plan " of the organization of birds: all of them have " a craw in which their food is lodged; in the " Pelican it lies without and under the bill, in- " ſtead of being concealed within, and placed at " the bottom of the *œſophagus*. But this exte- " rior craw has not the digeſtive heat of that of " other birds, and in this bag the Pelican car- " ries the fiſh entire to its young. To diſgorge " them it preſſes the pouch againſt its breaſt; " and this very natural act may have given riſe " to the fable ſo generally told, that the Pelican " opens its breaſt to nouriſh its offspring with " its blood."

The neſt of the Pelican is commonly found at the verge of waters; it places it flat on the ground *; and Salerne was miſtaken, confound-

* Belon, Sonnerat, and others.—" They lay on the bare ground, " and cover their eggs in this ſituation. . . . I have found five " under a female, which did not give herſelf the trouble to riſe " and let me paſs; ſhe only made ſome pecks with her bill, and " ſcreamed when I ſtruck her to drive her from her eggs. . . . There " was a number of young ones on our iſlet. . . . I took two young " ones, which I faſtened to a ſtake, and I had the pleaſure, for " ſome days, of ſeeing the mother, which fed them and remained " the whole of the day with them, paſſing the night on a tree " above their heads; all the three were grown ſo familiar that they " allowed me to touch them, and the young ones took very graci- " ouſly the little fiſh which I offered them, and which they put firſt " into their pouch. I believe that I ſhould have brought them " away, if their dirtineſs had not hindered me: they are filthier than " geeſe or ducks; and we may ſay that their life is divided into " three acts, to ſeek food, to ſleep, and to eject every minute heaps " of excrements as large as one's hand." Labat, *Nouveau Voyage aux îles de l'Amerique, tom.* viii. *pp.* 294, 296.

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ing it probably with the ſpoon-bill, when he ſaid that it breeds on trees. It is true that it perches on theſe, notwithſtanding its weight and its broad webbed feet; and this habit, which would be leſs ſurprizing in thoſe of America, where many aquatic birds perch, obtains equally in the Pelicans of Africa and of other parts of our continent *.

This bird, as voracious as it is deſtructive †, takes up in a ſingle excurſion as many fiſh as would feaſt half a dozen men. It ſwallows eaſily a fiſh of ſeven or eight pounds: and we are told that it alſo eats rats and other ſmall animals ‡. Piſon ſays, that he ſaw a kitten ſwallowed alive by a Pelican, which was ſo familiar that it walked into the market; where the fiſhermen haſtened to tie its bag, leſt it ſhould ſlily purloin ſome of their fiſh.

It eats with the ſide of its mouth, and when a perſon throws it a morſel, it ſnaps at it. The pouch in which it ſtores all its captures, conſiſts

* "They are ſeen (in Guinea) to perch by the river ſide on "ſome tree, where they wait to ſhoot upon the fiſh which appear "on the ſurface." *Voyage de Gennes au Detroit de Magellan, Paris,* 1698, *p.* 41. "We ſaw thoſe large birds called *pelicans* perch "upon trees, though they have feet like a gooſe. . . . Their eggs "are as large as a halfpenny roll." *Voyage à Madagaſcar, par Fr. Cauche, p.* 1361.

† *Inexplebile animal,* ſays Pliny.

‡ "It is exceedingly fond of rats, and ſwallows them entire. . . "ſometimes we made it come near us, and as if it wiſhed to amuſe "us, it brought up a rat from its crop, and threw it at our feet." Boſman, *Voyage en Guinée, Lettre* XV.

 of

of two ſkins; the inner coat is continued from the membrane of the *œſophagus*, the outer is only a production of the ſkin of the neck: the wrinkles in which it is folded ſerve to contract the bag, and when empty it becomes flaccid. The bag of the Pelican is uſed as a tobacco-pouch, and, in the French Weſt India iſlands is termed *blague* or *blade* *, from the Engliſh word *bladder*. It is aſſerted, that when theſe are prepared, they are more beautiful and ſofter than lamb-ſkins †. Some ſailors make caps of them ‡; the Siameſe form muſical ſtrings of the ſubſtance §; and the fiſhermen of the Nile uſe the ſac attached to the jaw as a ſcoop for lading their boats, or for holding water; as it neither rots with moiſture nor can be penetrated by it ‖.

* *Blagues* are prepared by rubbing them well between the hands, to ſoften the ſkin; and to increaſe the pliancy, they are beſmeared with the butter of the cocoa, and again paſſed between the hands, care being taken to preſerve the part which is covered with feathers as an ornament. *Note communicated by the Chevalier Deſhayes.*— "The ſailors kill the Pelican for its bag, into which they put "a cannon-ball, and then hang it up, to give it the ſhape of a "tobacco-pouch." Le Page du Pratz, *Hiſtoire de la Louiſiane, tom.* ii. *p.* 113.

† "Our people killed many, not to eat . . . but to have their "*blagues*; for this is the name given to the pouch where they ſtore "their fiſh. All our ſmokers uſe them to hold their cut tobacco. ". . . They are paſſed for lamb-ſkins, and they are much finer and "ſofter; they become of the thickneſs of good parchment, but "extremely pliant and ſoft. The Spaniſh women hem them very "prettily and delicately with gold and ſilk; I have ſeen ſome "pieces of work of this kind that were exceedingly beautiful." Labat, *tom.* viii. *p.* 299.

‡ Cauche. § Tachard. ‖ Belon.

It

It ſeems that nature has provided with ſingular caution againſt the ſuffocation of the Pelican: when, to ſwallow its prey, it opens under water its whole bag, the *trachea arteria*, then leaving the *vertebræ* of the neck, adheres under this bag, and occaſions a very ſenſible ſwelling; at the ſame time two ſphincter muſcles contract the *œſophagus* in ſuch manner as to completely prevent the water from entering *. At the bottom of this ſame bag is concealed a tongue ſo ſhort, that the bird has been believed to have none †; the noſtrils alſo are almoſt inviſible, and placed at the root of the bill; the heart is very large; the kidney very ſmall; the *cæca* equally ſmall, and much leſs in proportion than in the gooſe, the duck, and the ſwan: Laſtly, Aldrovandus aſſures us, that the Pelican has only twelve ribs; and he obſerves that a ſtrong membrane, furniſhed with thick muſcles, covers the pinions.

But a very intereſting obſervation we owe to M. Mery and Father Tachard ‡, that air is ſpread

* Memoires de l'Academie des Sciences, *p.* 196.

† Geſner.

‡ " In a journey which we made to the loadſtone-mine, M. de " la Marre wounded one of theſe large birds which our people call " *grand goſier*, and the Siameze *noktho* . . . its ſpread wings mea- " ſured ſeven feet and a half. . . . In diſſection we found, under " the fleſhy panicle, very delicate membranes which enveloped the " whole body, which folding differently, formed many conſidera- " ble ſinuſes, particularly between the thighs and the belly, be- " tween the wings and the ribs, and under the craw; ſome were " ſo

ſpread under the ſkin through the whole body of the Pelican. It may even be ſaid that this is a general fact, more conſpicuous indeed in the caſe of the Pelican, but which obtains in all birds, and which M. Lory, a celebrated and learned phyſician at Paris, has demonſtrated by tracing the communication from the atmoſphere to the bones and the pipes of the quills. In the Pelican, the air paſſes from the breaſt into the axillary ſinuſes, whence it inſinuates into the veſicles of the thick and ſwelled cellular membrane which covers the muſcles and envelopes the whole body, under the membrane in which the feathers are rooted; theſe veſicles are inflated to ſuch a degree, that on preſſing the body, the air is obſerved to eſcape every way under the fingers. During expiration, the air compreſſed in the breaſt paſſes into the ſinuſes, and thence ſpreads into all the veſicles of the cellular texture: by blowing into the *trachea arteria*, we may even make the courſe of the air ſenſible to the eye. We may conceive therefore how

" ſo wide as to admit the two fingers; theſe great ſinuſes divided " into many little ducts, which by perpetual ſubdiviſion ran into " an endleſs multitude of ramifications, which were perceptible only " by the bubbles of air which inflated them; inſomuch that, preſ- " ſing the body of this bird, one heard a little noiſe like that pro- " duced by preſſing the membranous parts of an animal which has " been inflated. By the aſſiſtance of the probe and blowing, we " diſcovered the communication of theſe membranes with the " lungs." *Second Voyage of Father Tachard*; *Hiſt. Gen. des Voy. tom.* ix. *p.* 311.

much

much the Pelican may enlarge its volume without increaſing its weight, and how much this muſt facilitate the flight of this great bird.

The fleſh of the Pelican needed not to have been forbidden among the Jews as unclean; for it condemns itſelf by its bad taſte, its marſhy ſmell, and its oily fat, though ſome navigators have eaten of it*.

* "Their fleſh is better than that of boobies or man of war "birds."—*Dampier.*

[A] Specific character of the Pelican, *Pelecanus-Onocrotalus*: "It is white, and its throat furniſhed with a pouch."

VARIETIES of the PELICAN.

We have obſerved in many articles of this Natural Hiſtory, that in general the ſpecies of the large birds, like thoſe of the large quadrupeds, exiſt ſingle, detached, and almoſt without varieties; that they alſo appear everywhere the ſame; whereas under each genus or in each family of ſmall animals, and eſpecially in thoſe of the little birds, there is a multitude of breeds more or leſs akin to the parent ſtock, and which have improperly been denominated *ſpecies*. That term, and the metaphyſical notion which it involves, often withdraws us from

the true knowledge of the ſhades of nature in her productions, much more than the names of *varieties*, of *breeds*, and of *families*. But this lineage, which is loſt amidſt the collateral branches in the ſmall ſpecies, maintains itſelf among the large ones; for they admit of few varieties only, which may always be eaſily referred to their primary trunk. The oſtrich, the caſſowary, the condor, the ſwan, all the birds of the firſt magnitude, have few or no varieties in their ſpecies. Thoſe which may be reckoned the ſecond order in bulk or ſtrength, ſuch as the crane, the ſtork, the pelican, the albatroſs, admit of only a ſmall number of theſe varieties, which in the Pelican may be reduced to two.

The BROWN PELICAN.

FIRST VARIETY.

Pelecanus Fuſcus. Linn. and Gmel.
Onocrotalus Fuſcus. Briſſ.
The Pelican of America. Ellis and Edwards.
The Duſky Pelican. Pennant.

WE have already remarked, that the plumage of the Pelican is ſubject to vary, and that, according to the age, it is more or leſs white and

and tinged with a little roſe-colour: it ſeems to vary alſo from circumſtances, for it is ſometimes mixed with gray and black. Theſe differences have been remarked between individuals which undoubtedly belonged to the ſame ſpecies *. But theſe intermingled colours are ſo little removed from a general gray or brown caſt, that Klein has not heſitated to aſſert poſitively that the brown and white pelicans are only varieties of the ſame ſpecies. Sir Hans Sloane, who had carefully obſerved the Brown Pelicans of America, confeſſes alſo that they appeared to be the ſame with the white pelicans. Oviedo, ſpeaking of the pelicans with a cinereous plumage which occur on the rivers of the Antilles, remarks, that ſome of them are of a very fine white †. We are inclined to think that the brown colour is the garb of the young ones; for the Brown Pelicans have generally been found to be ſmaller than the white. Thoſe ſeen near Hudſon's Bay were alſo ſmaller and of a duſky caſt ‡; ſo that their white is not occaſioned by the ſeverity of the climate. The

* "Some had their plumage entirely white, with the light and "tranſparent caſt of fleſh-colour, except the wings, whoſe great "quills had a tinge of gray and black; the others were of a much "more decided fleſh or roſe-colour." *Memoires de l'Academie des Sciences*, &c. The Pelican killed on the lake of Albufera had its back of a blackiſh gray. *Journal Politique, &c.*

† Hiſt. Gen. des Voy. *tom.* xiii. *p.* 228.

‡ Ellis, and l'Hiſt. Gen. des Voy. *tom.* xiv. *p.* 663; and *tom.* xv. *p.* 268.

ſame variety of colour is obſerved in the hot countries of the ancient continent. Sonnerat, after having deſcribed two pelicans of the Philippine iſlands, the one brown and the other roſe-colour, expreſſes a ſuſpicion, as we do, that he had only viewed the ſame bird at different ages. And what confirms our opinion, Briſſon has given a Philippine pelican, which ſeems to form the intermediate ſhade, being not entirely gray or brown, but having only the wings and part of the back of that colour, and the reſt white *.

* "Above gray cinereous, below white, the rump of the ſame "colour; the head and neck bright whitiſh, with a longitudinal "bar on the upper part of the neck, variegated with brown and "whitiſh; the greater wing-quills cinereous blackiſh, the tail-"quills cinereous white, their ſhafts blackiſh, the lateral ones "bright white at their origin."

[A] Specific character of the *Pelecanus Fuſcus*: "It is aſh-"brown, its primary wing-quills black, its throat furniſhed with a "pouch."

The INDENTED-BILLED PELICAN.

SECOND VARIETY.

Pelecanus-Thagus. Gmel.
Onocrotalus Rostro Denticulato. Briss.
Onocrotalus Mexicanus Dentatus. Hernandez, &c.
*The Saw-billed Pelican**. Lath.

If the indenting of the bill of this Mexican Pelican be natural and regular, like that of the bill of the merganser and some other birds, this particular character would suffice to constitute a different species, though Brisson gives it only as a variety: but if this indenting be formed by the accidental chipping of the edges of the bill, as we have remarked in the bill of certain calaos, the accidental difference deserves not even to be admitted as a variety; and we lean more to this opinion, as Hernandez mentions the common pelican and the Indented-billed Pelican as inhabiting the same places.

* *Atototl, Alcatraz, Onocrotalus Mexicanus Dentatus.* Hernandez.— *Atototl.* Fernandez.

The CORMORANT.

LE CORMORAN. *Buff.*

Pelecanus-Carbo. Linn. and Gmel.
Phalacrocorax. Gefner and Briffon.
Morfex. Gefn. and Aldrov.
Carbo Aquaticus. Gefner.
Corvus Aquaticus. Gefner. Aldrov. Johnft. &c. *

THE name of this bird was formerly pronounced *cormaran* or *cormarin*, being contracted from *corvus marinus* or *fea-raven* †: the Greeks ftiled it the *bald-raven*. Yet it refembles the raven in nothing but its black plumage, and even this is downy, and of a lighter fhade.

The Cormorant is a pretty large bird with webbed

* In Greek Φαλακροκοραξ, from φαλακρος *bald*, and κοραξ *a raven*. The Spanifh name *Cuervo Calvo* has the fame fignification: and the notion of *water* or *fea-raven* is implied in modern Latin, in Italian, in German, and Silefian, by the appellations of *Corvus Aquaticus, Corvo Marino, Waffer-Rabe, See-Rabe.* In Swedifh it is termed *Hafts-tjaeder:* in Norwegian *Skary*; and in the ifle of Feroe *Hupling:* in Polifh *Krukwodny.* In fome of the French provinces it is ftiled *Crot-Pefcherot*, or *Dirt-fifher.*

† *Caius*, or Dr. Kay, in Gefner, conjectures, that *cormorant* is a corruption of *corvorant, corvus vorans*, or *devouring raven:* and Pennant and Latham have adopted *corvorant.* But it is doubtful whether, for the fake of a fpecious etymology, we fhould alter a word of fuch common ufe in our language: the derivation affigned in the text is befides more probable.—*T.*

webbed feet, which ſwims and dives with equal facility, and devours multitudes of fiſh: it is nearly of the bulk of the gooſe, of a narrower form, rather thin than thick, and lengthened by a large tail more ſpread than uſual in the aquatic birds; this tail conſiſts of fourteen ſtiff feathers like thoſe of the woodpecker's tail; they are black gloſſed with green, like almoſt all the reſt of the plumage: the back is waved with black feſtoons on a brown ground; but theſe ſhades vary in different individuals, for Salerne ſays, that the colour of the plumage is ſometimes a greeniſh black: all of them have two white ſpots on the outſide of the legs; with a white gorget, which embraces the top of the neck like a chin-piece: there are white feathery filaments like briſtles, ſtuck on the top of the neck and the upper part of the head, of which the front and the ſides are bald *: a ſkin, alſo naked, clothes the under ſide of the bill, which is ſtraight to the point, where it is bent into a very ſharp hook.

The Cormorant is one of the few birds which have four toes connected together by a ſingle piece of membrane. We might thence infer that it is a very great ſwimmer; yet it remains leſs in the water than many other aquatic birds,

* "Some animals are naturally bald, as the oſtriches and the "water ravens, which thence derive their Greek name." *Plin.* lib. ii. 38.

whoſe

whofe foles are neither fo continuous nor fo broad: it frequently flies and perches on trees. Ariftotle afcribes this habit to it alone of all the *palmiped* birds *; but it is common to the pelican, the booby, the frigate, the anhinga, and the tropic bird; and what is fingular, thefe birds, together with it, form the fmall number of the aquatic fpecies which have the four toes connected by continuous membranes. This coincidence has induced modern ornithologifts to range five or fix birds under the generic name of *pelican* †. But the analogy muft be ftrained for the fake of a fcholaftic generalization; when, from the refemblance of a fingle part, the fame appellation is given to fpecies fo different from each other as that of the tropic bird, for inftance, and that of the common pelican.

The Cormorant is fo dextrous in fifhing, and fo voracious, that when it vifits a pool, it commits alone more havoc than a whole flock of other pifcivorous birds. Fortunately, it refides almoft conftantly on the fea-fhores, and feldom occurs in inland countries ‡. As it can remain a long time plunged §, and fwims under water

* *Hift. Animal.* lib. viii. 3.

† Klein and Linnæus have formed this family. The Cormorant there figures, under the appellation *pelecanus carbo*; the frigate, under that of *pelecanus aquilus*, &c.

‡ "On the 27th of January (1779) a Cormorant was brought "to me, which was juft killed on the fide of the river Ouche: it "had perched on a willow." *Extract of a letter from M. Hebert.*

§ Schwenckfeld.

with

with the rapidity of a dart, its prey ſcarce ever eſcapes, and it almoſt always emerges holding a fiſh acroſs in its bill: to ſwallow the victim it employs a ſingular expedient; it toſſes up the fiſh in the air, and dextrouſly catches the head in falling, ſo that the fins lie flat and favour the paſſage down the throat, while the membranous ſkin that lines the under ſide of its bill ſtretches to admit the whole body of the fiſh, which is often very large in proportion to the neck of the bird.

In ſome countries, as in China, and formerly in England *, the ſkill of the Cormorant in fiſhing was turned to profit: for, by buckling a ring about the lower part of its neck, to prevent deglutition, and accuſtoming it to return with its acquiſitions in its bill to its maſter, it was made, ſo to ſay, a domeſtic fiſher. On the rivers of China, the Cormorants, thus buckled, are perched on the prows of the boats, and on a ſignal being given, by ſtriking the water with an oar, they plunge into that element, and quickly emerge with a fiſh, which is taken out of their bill; and this toil is continued, till its maſter, ſatisfied with the earnings, looſens its collar, and permits it to fiſh for its own account †.

Hunger alone gives activity to the Cormorant; it becomes lazy and ſluggiſh after its appetite is glutted. It inclines to fat, and though

* According to Lynceus in Willughby.

† Nieremberg. Voyage à la Chine, par de Feynes: *Paris*, 1630, *p.* 173. Hiſt. Gen. des Voy. *tom.* vi. *p.* 221.

it has a very ſtrong ſmell, and an unpleaſant taſte, it is not always deſpiſed by ſailors, to whom the ſimpleſt and coarſeſt fare is often more delicious than the moſt exquiſite viands to our delicate palates *.

The Cormorant occurs in the remoteſt latitudes; in the Philippines †, in New Holland ‡, and even in New Zealand §. In the bay of Saldana there is an iſland ſtiled the *Iſland of Cormorants* ‖, becauſe it is covered, as it were, with theſe birds. They are not leſs common in other parts near the Cape of Good Hope. "Some-"times flocks," ſays the Viſcount de Querhoënt, "are ſeen of two or three hundred in the road "off the Cape. They are not timid; which "is no doubt becauſe they are little moleſted. "They are naturally indolent: I have ſeen "them reſt ſix hours on the buoys of our an-"chors. Their bill is furniſhed below with a "ſkin of a fine orange colour, which extends "under the throat a few lines, and dilates at "pleaſure. The iris is of a fine light green;

* "Their fleſh has an exceeding rank fiſhy taſte; however it is "pretty good, being very fat." *Dampier.*—"We killed a great "number of Cormorants, which we ſaw perched on their neſts in "the trees, and which were roaſted or dreſſed in a ſtove, and af-"forded us excellent diſhes." *Cook's Firſt Voyage.*

† It is there called *Colocolo.* See Philoſ. Tranſ. Nº 285, and Hiſt. Gen. des Voy. *tom.* x. *p.* 412.

‡ Cook.

§ Ibid.

‖ Flacourt.

"the

" the pupil black; the orbit edged with a violet " ſkin: the tail is formed like that of the wood- " pecker, containing fourteen hard ſharp quills. " The old ones are entirely black; but the " young ones are all gray the firſt year, and " have not the orange ſkin under the bill.— " They were all very fat *."

The Cormorants are alſo very numerous in Senegal, according to M. Adanſon †. They ſeem alſo to be the *Plutons* of the iſland Mauritius, as deſcribed by the traveller Leguat ‡; and,

* Remarks made in 1774, by the Viſcount de Querhoënt, of his majeſty's navy.

† " We arrived on the 8th October at Lamnai (a little iſland of " the Niger); the trees were there covered with ſuch a prodigious " multitude of Cormorants, that the Laptots, in leſs than half an " hour, filled a canoe with young ones which had been taken by the " hand, or felled with ſticks, and with old ones, of which ſeveral " dozens fell at every ſhot." *Voyage au Senegal, p.* 80.

‡ " On a rock, near the iſland Mauritius, came birds which we " called *Plutons* (Pluto's), becauſe they are entirely black like *ra-* " *vens*; they have alſo nearly the ſame ſhape and ſize, but their " bill is longer, and hooked at the end; their foot is that of the duck: " theſe birds live ſix months of the year at ſea; thoſe in the neigh- " bourhood repaired to our rock, where they hatched. They have " a cry as ſtrong almoſt as the lowing of a calf, and they make a great " noiſe in the night. During the day they were very ſtill, and ſo " tame that they ſuffered us to take the eggs from under them with- " out ſtirring; they lay in holes of the moſt projecting rock that " they can find. Theſe birds are very fat, and ill-taſted, unwhole- " ſome, and abominably ſtinking. Though their eggs are hardly " better than their fleſh, we ate them in neceſſity; they are white, " and as large as thoſe of our *hens*; when theſe were taken, they " retired into their holes, and fought with each other, till they " were all over bloody." *Voyage de François Leguat*; *Amſterdam*, 1708, *tom.* ii. *pp.* 45, 46.

what

what is ſingular, they ſupport alike the heat of that climate and the cold of Siberia. It appears, however, that the ſevere winters of the northern regions oblige them to migrate: for thoſe which in ſummer inhabit the lakes in the neighbourhood of Selenginſkoi, where they are called *baclans*, have been obſerved to retire in autumn to Lake Baikal *, there to ſpend the winter. The ſame muſt be the caſe with the *ouriles*, or Cormorants of Kamtſchatka, well deſcribed by Kraſcheninicoff †, and indicated in the fabulous relation of the Kamtſchadales, who ſay that theſe birds have bartered their tongue with the wild goats, for the tufts of white briſtles on their neck and thighs ‡: yet is it falſe that theſe birds have no tongue; and Steller avers, that they ſound day and night with a voice like the note of a little hoarſe trumpet.

Theſe Cormorants of Kamtſchatka paſs the night, gathered in flocks, on the projections of craggy rocks, from which they often fall to the ground during their ſleep, and then become the prey of the foxes, which are ever on the watch. In the day-time, the Kamtſchadales ſearch for their

* "The inhabitants of theſe cantons believe that when the *baclans* make their neſts on the top of a tree, it grows dry; in fact, "we ſaw that all the trees where were neſts of theſe birds had withered; but perhaps they chuſe trees already decayed." Gmelin; *Voyage en Siberie, tom.* i. *p.* 244.

† Hiſt. Gen. des Voy. *tom.* xix. *p.* 272.

‡ Idem. *tom.* i. *p.* 272.

eggs,

eggs, at the riſk of tumbling upon the precipices, or daſhing into the ſea. And to catch the birds themſelves, they faſten a running knot to the end of a rod: the heavy, indolent Cormorant, when once ſeated, cares not to ſtir, but only turns his head from right to left to avoid the nooſe, which is at laſt ſlipped on his neck.

The head of the Cormorant is ſenſibly flat, like that of moſt diving birds; its eyes are placed very much forward, and near the corners of the bill, whoſe ſubſtance is very hard, and ſhining like horn; the feet are black, ſhort, and very ſtrong; the tarſus is very broad, and flattened ſidewiſe; the middle nail is ſerrated interiorly, like that of the heron; the pinions are very long, but clothed with ſhort quills, which makes it fly heavily, as Schwenckfeld obſerves. This naturaliſt is the only perſon who aſſerts that he ſaw a particular little bone, which riſing behind the *cranium*, deſcends in form of a thin blade, and is inſerted into the muſcles of the neck.

[A] Specific character of the Cormorant, *Pelecanus Carbo*: "Its "tail is rounded, its body black, its head ſomewhat creſted." It makes its neſt with ſticks, ſea-weed, graſs, &c. and lays ſix or ſeven eggs, which are white and of an oblong ſhape.

The SHAG.

Le Petit Cormoran, ou Le Nigaud *.

Buff.

Pelecanus Graculus. Linn. and Gmel.
Phalacrocorax Minor. Briff.
Graculus Palmipes. } Aldrov. Sibb. &c.
Corvus Aquaticus Minor. }
The Shag, or Crane. Ray and Will.

The heavineſs or rather indolence natural to all the Cormorants, is ſtill more remarkable in the preſent; which has, for that reaſon, been ſtyled the *Shag* or *Ninny (Niais* ou *Nigaud).* This ſpecies is not leſs diffuſed than the former: it occurs particularly in the iſlands and the extremities of the ſouthern continents. Cook and Forſter found it on the iſland of Georgia; which, though not inhabited, and almoſt inacceſſible by man, is ſtocked with theſe little Cormorants, which ſhare the domain with the penguins, and lodge among the tufts of ruſhy graſs, the only vegetable production in that dreary tract. Staten-land is ſimilar, and contains likewiſe great numbers of birds. An iſland in the Straits of Magellan was ſo full of them, that Captain Cook called it *Shag Iſland.* It is in theſe extremities of

* *i. e.* The Little Cormorant, or Simpleton.

of the globe that nature, benumbed with cold, has allowed five or fix fpecies ftill to fubfift, the laft inhabitants of the territories invaded by the progrefs of refrigeration: they live in calm apathy, the gloomy prelude of the eternal filence which foon will there eftablifh its iron reign*. "One

* The gradual refrigeration of the earth is a favourite hypothefis of our ingenious author. He had fuppofed that a comet, reeling in its eccentric orbit, dafhed againft the fun, and ftruck off that ignited matter, which, gathering into globes and recovering from diforder, formed our planetary fyftem. He made a great many experiments with heated metallic balls of different diameters, to difcover their rate of cooling: and in his Epochs of Nature, the moft fanciful of all his works, he transferred thefe deductions to the globe of the earth; he poetically delineated its condition at the various ftages of cooling; and he predicted the glacial cruft, which, in procefs of ages, will imprifon old ocean.

But this account of the formation of the world is totally inconfiftent with the eftablifhed laws of motion; and even were it admitted, it would only remove the difficulty a fingle ftep; for how was the comet produced? The experiments with heated balls are inconclufive. Bodies have no natural tendency to cool, any more than to heat: they only maintain an equality of temperature with the furrounding matter. In ordinary cafes, cooling is produced by the fucceffive application of different portions of air to the hot furface. A body colder than the atmofphere would in the fame manner be heated. In the exhaufted receiver of an air-pump, the progrefs of heating or cooling is much flower; and could a perfect vacuum be obtained, there is every reafon to think that a body would for ever retain the fame temperature. The earth would therefore preferve perpetually its heat; and even though we fhould fuppofe it to be environed with a fubtle æther (which is altogether improbable) the communication of this heat to other planets or fyftems would be extremely flow and imperceptible. Nay, if there be any difference, the earth is growing warmer, by the inceffant abforption of the fun's rays: yet fo vaft is its mafs, that this effect will not much exceed a degree in a thoufand years. Hiftory feems to corroborate this conjecture.

"One is aſtoniſhed," ſays Captain Cook, "at the peace which prevails in this land. The animals that inhabit it would ſeem to have formed a league not to diſturb their mutual tranquillity. The ſea-lions occupy the greateſt part of the coaſt; the white bears reſide in the interior part of the iſland; and the Shags lodge in the loftieſt rocks: the penguins ſettle where they have eaſieſt communication with the ſea; and the other birds chuſe places more retired. We have ſeen all theſe animals intermingled and walking together, like cattle or poultry in a farm-yard, without offering the leaſt injury to each other."

In theſe dreary waſtes, naked, and almoſt frozen, the Shags breed in the ragged ſides of rocks, or the projecting cliffs that overhang the ocean. In ſome parts, their neſts are found among ſmall patches of flags, or in the tall tufts of the coarſe graſs which we have mentioned. There they inhabit, collected in thouſands: the report of a muſket does not diſperſe them; they only riſe a few feet, and alight again into their neſts. Nor need we uſe fire-arms, for they may

conjecture. Witneſs the ancient and modern ſtate of Italy, a country which has remained nearly in the ſame ſtate of cultivation.

With regard to the huge bones dug up in Siberia, and believed to be thoſe of the elephant, which is a native of hot climates, they probably belong to ſome animal whoſe ſpecies is now extinct. Such at leaſt was the deciſion of the celebrated Dr. Hunter, upon examining the bones found near the Ohio, in the back parts of North America. *T.*

be felled with ſticks, and yet their companions will not be alarmed, or endeavour to eſcape from the maſſacre. Their fleſh, eſpecially that of the young ones, is pretty good food.

Theſe birds do not ſtray far into the ſea, and ſeldom loſe ſight of land. Like the penguins, they are clothed with a very thick plumage, well adapted to guard againſt the ſevere and continual cold of the frozen regions which they inhabit. Forſter ſeems to admit ſeveral ſpecies or varieties of this bird; but as he does not ſufficiently diſtinguiſh them, and as the different mode of neſtling on tufts or in the crevices of rocks is inſufficient to diſcriminate the ſpecies, we ſhall deſcribe only the common Shag known in our climates.

They are pretty numerous on the coaſt of Cornwal and in the Iriſh ſea, particularly on the Iſle of Man *. They are found alſo on the ſhores of Pruſſia †, and in Holland ‡ near Sevenhuis, where they breed on tall trees. Willughby ſays, that they ſwim with their body entirely immerſed, and only their head out of the water; and that they are as nimble and alert in that element as they are ſluggiſh on land, and eſcape the ſhot by diving the inſtant they perceive the flaſh. In general, the Shag has the ſame natural habits with thoſe of the cormo-

* Ray. † Klein. ‡ Ray.

rant *, which it reſembles in its figure and in its colours: the difference conſiſts in this, that its body and limbs are ſmaller and more ſlender, its plumage brown under the body, its throat not naked, and that there are only twelve quills in the tail †.

Some ornithologiſts have ſtiled the Shag the *palmiped jay*: but this is as little proper as the vulgar appellation of *water raven* given to the cormorant. The *palmiped jays* which Captain Wallis met with in the Pacific Ocean ‡ are probably a ſpecies of Shag; and to it we ſhall alſo refer the *handſome cormorants* of which Captain Cook ſaw large flocks neſtled in ſmall cavities, which theſe birds ſeemed to have widened for themſelves in a rock of ſchiſt, whoſe broken ſides terminate New Zealand.

The interior organization of the Shag preſents many curious particulars, which we ſhall extract from the obſervations of the Academicians. A bony ring embraces the *trachea arteria* above the bifurcation: the *pylorus* is not inſerted at the bottom of the ſtomach as uſual, but opens into the middle of that ventricle, leaving one-half hanging below; and this lower part is very fleſhy and muſcular, ſo as to

* "To ſwallow a fiſh it toſſes it into the air, and catches with "its bill the head foremoſt. We have ſeen it perform this ma-"nœuvre with ſuch addreſs, that it never miſſed." *Anciens Memoires de l'Academie des Sciences, tom.* iii. *partie* 3. *p.* 214.

† Ray and Willughby.

‡ In latitude 20 degrees 50 minutes north.

 force

force up by its contraction the food to the orifice of the *pylorus*: if we blow into the *œsophagus*, it ſwells and appears a continuation of the ſtomach, which otherwiſe is ſeparated from it by a narrow ring: the inteſtines are incloſed in an *epiploon*, well lined with fat, of the conſiſtence of tallow; this fact is an exception to what Pliny ſays in general of oviparous animals, that they have no epiploon *. The ſhape of the kidnies is ſingular; they are not parted into three lobes, as in other birds, but jagged like a cock's comb on their convex portion, and divided from the reſt of the lower belly by a membrane which inveſts them: the *cornea* of the eye is of a bright red, and the cryſtalline approaches the ſpherical form, as in fiſh: the baſe of the bill is furniſhed with a red ſkin, which alſo ſurrounds the eye: the aperture of the noſtrils is ſo narrow a ſlit as to have eſcaped obſervers, who have aſſerted, that the cormorants, both the greater and the leſſer, want the noſtrils: the greateſt toe in theſe two ſpecies is the outer, compoſed of five *phalanges*, the next one containing three, the third three, and the laſt, which is the ſhorteſt, only two: the feet are of a ſhining black, and armed with pointed nails †:

* Lib. ii. 37.

† M. Perrault refutes ſeriouſly the fable of Geſner, who ſays, that there is a kind of cormorant which has a membranous foot, with which it ſwims, and another whoſe toes are naked, with which it ſeizes its prey.

under the feathers there is a very fine down, as thick as that of the ſwan; ſmall ſilky feathers, cloſe like velvet, cover the head; from which Perrault infers, that the cormorant is not the bald raven, *phalacrocorax*, of the ancients. But he ought to have qualified this aſſertion, having himſelf obſerved before, that on the ſea-ſhores there occurs a great cormorant different from the ſmall cormorant or ſhag: and this bald-headed great cormorant is, as we have ſeen, the true *phalacrocorax* of the ancients.

[A] Specific character of the Shag, *Pelecanus-Graculus*: "Its "tail is rounded; its body black, below brown; it has twelve "wing-quills."

The SEA SWALLOWS.

Le Hirondelles de Mer. *Buff.*

Of the multitude of names * transferred for the moſt part improperly from the land animals to thoſe of the ſea, a few have been happily applied; ſuch as that of the Swallow, given to a ſmall family of piſcivorous birds, which reſemble our ſwallows by their long wings and forked tail, and by their continual circling on the ſurface of the water. As the land ſwallows flutter ſwiftly in the fields or round our dwellings in ſearch of winged inſects, ſo the Sea Swallows circle and glance rapidly on the liquid plains, and nimbly ſnatch the little fiſh which play on the ſurface. Such reſemblance in the form and habits of theſe two kinds of birds might, in ſome meaſure, juſtify their receiving the ſame appellation: yet they differ eſſentially in the ſhape of their bill, and the ſtructure of their feet. The Sea Swallows have ſmall membranes ſhrunk between their

* In German *See Schwalbe*: in Swediſh, and the other northern languages, *Taern*, *Terns*, *Stirn*; whence Turner derives the name *Sterna*, adopted by nomenclators to diſtinguiſh this genus of birds.

toes,

toes, which are not adapted for ſwimming*: for nature ſeems to have beſtowed on theſe birds only the power of their wings, which are extremely long, and ſcooped like thoſe of the common ſwallows. They likewiſe glide and circle, ſink and riſe in the air, croſſing and entwining their various irregular track in a thouſand directions †; their flight is impelled by ſtarts of momentary caprice, and led by the ſudden glimpſe of their fugitive prey. They ſnatch the victim on wing, or alight only a moment on the ſurface; for they are averſe to ſwim, though their half-webbed feet might contribute to that purpoſe. They reſide commonly on the ſea-ſhores, and frequent alſo lakes and great rivers. The Sea Swallows, in flying, ſcream loud and ſhrill like the martins, eſpecially when, in calm weather, they riſe to a great height in the air, or when they congregate in ſummer to make diſtant excurſions, but particularly in the breeding ſeaſon, at which time they are more than ever reſtleſs and clamorous, perpetually redoubling their motions and their cries: and as they are always extremely numerous, we can hardly, without being ſtunned with the

* Hence Aldrovandus, looking upon the Sea Swallows as little gulls, diſtinguiſhes them by the name of cloven-footed gulls, *lib.* xix. 10. *de laris fiſſipedibus*.

† "Sailors call thoſe nimble birds found at ſea, *croiſeurs (croſſers)* "when they are large; *goelettes* when they are ſmall." *Remarks made by the Viſcount de Querhoënt*.

the noiſe, approach the ſhore, where they have diſpoſed their eggs or collected their young. They arrive in flocks on our weſtern coaſts in the beginning of May *: moſt of them remain without quitting the beach; others advance farther, and following the rivers, ſeek the lakes and the large pools †. Every where they live on ſmall fiſh, and ſometimes they even ſnap winged inſects in the air. The report of fire-arms does not intimidate them, and this ſignal of danger, ſo far from driving them off, ſeems rather to attract them; for the inſtant the fowler hits one of a flock, the reſt croud about their wounded companion, and drop with it to the ſurface of the water. The land ſwallows are likewiſe remarked to gather at the noiſe of a gun, or at leaſt they are not frighted away. Does not this habit proceed from a blind ſecurity? Birds that are hurried inceſſantly with a rapid flight, are more incautious than ſuch as ſquat in the furrows or perch on the trees; they have not learnt, like theſe, to obſerve and diſtinguiſh us, and to fly from their moſt dangerous enemies.

The feet of the Sea Swallows differ not from thoſe of the land ſwallows, except that they are ſemi-palmated; for in both they are very ſmall

* Obſervation made on thoſe of Picardy, by M. Baillon.

† As that of Indre, near Dieuze in Lorraine, which, including its windings and inlets, is ſeven leagues in compaſs.

and

and ſhort, and unfit for walking. The pointed nails which arm the toes ſeem not more neceſſary to the Sea Swallow than to the land one, ſince theſe birds equally ſeize the prey with the bill: that of the Sea Swallow is ſtraight, tapered to a point, ſmooth, not indented, and flat at the ſides. The wings are ſo long, that the bird when at reſt ſeems incumbered by them, and in the air appears all wing. But if this great power of flight makes the Sea Swallow an inhabitant of the air, it has other properties that diſtinguiſh it as an inhabitant of the water: for, beſides the ſcalloped membrane between the toes, a ſmall portion of the leg, as in almoſt all the aquatic birds, is bare, and the body is covered with a thick and very cloſe down.

This family of Sea Swallows includes a number of ſpecies, moſt of which have croſſed the ocean, and ſtocked its ſhores. They are found ſpread from the ſeas, the lakes *, and the great rivers † of the north, as far as the vaſt boundaries of the Southern Ocean ‡; and they occur in

* Even their name *taern* or *terns*, in the northern languages, ſignifies *lake*.

† Gmelin ſays, that he ſaw innumerable flocks of them on the Jeniſea, near Mangaſea in Siberia. *Voyage en Siberie, tom.* ii. *p.* 56.

‡ Captain Cook ſaw Sea Swallows near the Marqueſas, which are iſlands ſeen by Mendana.—The ſame navigator was attended by theſe birds from the Cape of Good Hope to the 41ſt degree of ſouth latitude.—Captain Wallis met with them in the 27th degree of latitude and the 106th degree of weſt longitude, on the great South Sea.—"The low iſlands within the tropics, and the whole of "the

in almoſt all the intermediate regions *. We ſhall adduce the proofs in deſcribing the different ſpecies.

" the Archipelago which ſurrounds Otaheite, are filled with " flights of Sea Swallows, boobies, frigats, &c." *Forſter.*— " The Sea Swallows rooſt under the buſhes in Otaheite; Mr. " Forſter, in an excurſion before ſun-riſe, took ſeveral that were " ſleeping along the road." *Cook.*

* Sea Swallows are found in the Philippines, in Guiana, and Aſcenſion. We may recognize them in Dampier's deſcription of birds which he met with near New Guinea. " On the 30th of July, " all the birds which had hitherto accompanied us, quitted the " veſſel; but we ſaw others of a different kind, which were as large " as lapwings, with a gray plumage, the ſpace about their eyes " black, their bill red and pointed, their wings long, and their tail " forked as in ſwallows."—" On the 13th of July 1773, in lati- " tude 35° 02′, and longitude 2° 48′, during a violent north-weſt " wind, M. de Querhoënt ſaw many petrels and Sea Swallows; theſe " were at leaſt a half ſmaller than the petrels; their wings were " very long, and ſhaped like thoſe of our martin: they uſually keep " in flocks, and come very near veſſels."

The GREAT SEA SWALLOW.

LE PIERRE-GARIN, *ou* LA GRANDE HIRONDELLE DE MER DE NOS CÔTES. *Buff.*

FIRST SPECIES.

Sterna-Hirundo. Linn. and Gmel.
Sterna Major. Briſſ.
Sterna. Geſner, Aldrov. Johnſt. &c.
Larus Hirundo. Kramer.
Larus Albicans. Marſigli, and Klein.
Hirundo Marina Major. Will. and Sibb.
The Greater Tern. Pennant.
The Common Tern *. Latham.

THIS is the largeſt ſpecies of Sea Swallows that appears on our coaſts, being near thirteen inches from the end of the bill to that of the nails, near ſixteen to the end of the tail, and almoſt two feet acroſs the wings: its ſlender ſtature, its handſome gray mantle, its black cap, and its red bill and feet, conſpire to make it a beautiful bird.

On the return of ſpring, theſe Swallows arrive in

* In Swediſh *Taerna:* in Norwegian *Terne, Tende, Tendelobe, Sand-tolle, Sand Tærna:* in Daniſh *Tærna:* in Dutch *Icſterre:* in Swiſs *Schirring:* in Poliſh *Jaſkolla-morſka,* or *Kulig-morſki:* in Icelandic *Therne, Krua:* in Lapponic *Zhierrek:* in Greenlandic *Emerkotulak.*

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THE COMMON TERN.

in great flocks on our maritime ſhores, where they ſeparate into troops: ſome penetrate into the interior provinces, ſuch as the Orleanois *, Lorraine †, Alſace ‡, and perhaps farther, following the courſe of the rivers, and ſettling on the lakes and great pools; but the greater part remain on the coaſts, and make long excurſions into the ſea. Ray obſerves, that they are uſually found fifty leagues from the moſt weſtern part of England, and are even met with the whole way to Madeira; and that a vaſt multitude reſort to breed on the *Salvages*, deſert iſlets at a ſmall diſtance from the Canaries.

On the coaſts of Picardy, theſe birds are named *pierre garins*; they are lively and agile, ſays M. Baillon, venturous and ſkilful fiſhers: they dart after their prey into the ſea, emerge again in an inſtant, and mount to their former height in the air. They digeſt the fiſh as quickly almoſt as they catch it; the part which touches the bottom of the ſtomach diſſolves firſt: the ſame effect is obſerved in herons and gulls. So great is the digeſtive power, that the Sea Swallow can, after the interval of an hour or two, make a ſecond meal. They fight frequently, quarrelling about their prey. They ſwallow fiſh more than an inch thick, and ſo long,

* Salerne.

† Lottinger.

‡ On the Rhine near Straſburg, where they are called *Speurer*, according to Geſner.

long, that the tail projects out of their bill. Thofe that are taken and fometimes fed in gardens *, refufe not flefh, which they will not touch in the ftate of liberty.

Thefe birds pair on their arrival about the firft days of May. Each female drops in a fmall hole on the naked fand two or three eggs, very large in proportion to her bulk. The place chofen by them for this purpofe is always fcreened from the north wind, and fituated below fome downs. If a perfon approach the nefts, the parents will rufh precipitately from aloft, and flutter round him with loud reiterated fcreams of anger and inquietude.

Their eggs are not all of the fame colour, fome being very brown, others gray, and others almoft greenifh: thefe laft probably belong to young pairs; for they are rather fmaller, and it is known that of all birds which have coloured eggs, thofe of old ones are deeper ftained, rather thicker, and lefs pointed than thofe of young ones, efpecially in their firft layings. The female of this fpecies covers only during the night, or in the day when it rains: at all other

* "I have had feveral in my garden, where I could not keep them "long, becaufe of the annoyance of their perpetual cries, which were "continued even during the night. Thefe captive birds loft almoft "entirely their chearfulnefs; formed to fport in the air, they feel "incumbered on the ground, their fhort feet hamper them on every "obftacle they meet." *Extract of a Memoir of M. Baillon, on the Common Terns*, from which we take the details of the hiftory of thefe birds.

times

times ſhe leaves her eggs to the heat of the ſun. " When the ſpring is fine," M. Baillon writes me, " and the incubation was begun in " warm weather, the three eggs, their uſual " number, are hatched in three ſucceſſive " days, in the order they were laid; the deve- " lopement in the two firſt being forwarded by " the influence of the ſolar beams. If the wea- " ther was rainy or cloudy in the commencement, " that effect is not perceived, and the eggs burſt " together. The ſame remark has been made " with regard to ſea-larks and ſea-pies; and it " may reaſonably be extended to all birds which " lay on the naked beach.

" The young Sea Swallows, when juſt hatch- " ed, are clothed with a thick down, light gray, " and ſprinkled with ſome black ſpots on the " head and the back. Their parents fetch " them bits of fiſh, particularly liver and gills: " and when the mother comes at night to co- " ver the unhatched egg, the callow chicks " creep under her wings. Theſe maternal cares " laſt but a few days; the young aſſemble at " night, and lie cloſe together. Nor do the " parents long nouriſh them by the bill: with- " out deſcending each time to the ground, they " drop, or ſo to ſpeak, rain upon them food: the " young ones, now voracious, fight and quarrel " with each other, and ſcream loudly. Yet the " parents continue to watch them from aloft in " the air; a cry which they give as they glide

" along conveys the alarm, and inſtantly the " brood ſquat cloſe on the ſand. It would be " difficult to diſcover them, did not the ſhrieks " of the mother betray the ſpots where they " lurk. They make no effort to eſcape, but " may be gathered by the hand like ſtones.

" They fly not till more than ſix weeks after " they are hatched, it requiring all that time for " their broad wings to grow; like the land " ſwallows, which remain longer in the neſt " than other birds of the ſame ſize, and ſally " out better feathered. The firſt feathers of " the young Terns are light gray on the head, the " back, and the wings; the true colours appear " not till after moulting. But they have all " the ſame colours when they return in ſpring. " They depart from the coaſts of Picardy about " the middle of Auguſt; and I remarked that laſt " year, 1779, they choſe a north-eaſt wind."

[A] Specific character of the Common Tern, *Sterna-Hirundo*: " Its two outermoſt tail-quills are parted with black and white."

The LESSER SEA SWALLOW.

La Petite Hirondelle de Mer. *Buff.*

SECOND SPECIES.

Sterna Minuta. Linn. and Gmel.
Sterna Minor. Briff.
Larus Pifcator. Gefner, Aldrov. Johnft. &c.
The Leffer Tern *. Stillingfleet, Penn. and Lath.

This little Sea Swallow refembles the preceding fo clofely in its colours, that they are diftinguifhed only by their conftant and confiderable difference of fize. The prefent is not larger than a lark, though as clamorous and roving as the firft fpecies †. Yet will it live a prifoner, if caught in a fnare. In Belon's time, the fifhermen floated a crofs of wood, in the middle of which was faftened a fmall fifh for bait, with limed twigs ftuck to the four corners, on which the bird darting was entangled by the wings. Thefe little Sea Swallows, as well as the great ones, frequent our feas, lakes, and rivers, and retire alfo on the approach of winter.

* Near Strafburg it is called *Fifcherlin:* in Polifh *Ribtu.*

† "It is fo noify as to ftun the air, and to moleft the people who "pafs the fummer near marfhes and brooks." *Belon.*

[A] Specific character of the Leffer Tern, *Sterna Minuta:* "Its "body is white, its back hoary, its front and eye-brows white."

The GUIFETTE.

THIRD SPECIES.

Sterna Nævia. Gmel. and Briff.
Rallus Lariformis. Linn.
The Kirr-Meuw. Klein.
The Cloven-footed Gull. Albin.
The Kamtſchatkan Tern. Penn. and Lath.

THIS Sea Swallow is named *Guifette* on the coaſt of Picardy. Its plumage, which is white under the body, is agreeably variegated with black behind the head, with brown clouded with ruſty on the back, and with a handſome gray fringed with whitiſh on the wings. It is of a middle ſize between the two preceding, but differs in ſeveral particulars with regard to habits and œconomy. Baillon, who compares it with the great ſea-ſwallow, ſays, that it is diſtinguiſhed by many characters: 1. It does not continually ſeek its food on the ſea; it is not piſcivorous, but rather inſectivorous, feeding as much on flies and other inſects, which it ſnaps in the air, as on thoſe which it catches on the water: 2. It is not ſo clamorous as the great ſea-ſwallow: 3. It does not lay on the naked ſand, but chuſes in the marſhes a tuft of herbs

or mofs in fome infulated hillock amidft the water or on its brink; it carries thither fome dry ftalks of herbs, and drops its eggs, which are generally three in number: 4. It covers affiduoufly feventeen days, and all the chicks burft the fhell the fame day.

The young cannot fly till after a month, and yet they retire early with their parents, and often before the greater terns. They are feen flying along the Seine and the Loire at the time of their paffage. Their flight refembles that of the greater terns; they are even continually in the air: they fly oftener fkimming the furface of the water, and rife very high, and with great rapidity.

The BLACK GUIFETTE; *or*, the SCARE-CROW.

FOURTH SPECIES.

Sterna Fiffipes. Linn. and Gmel.
Sterna Nigra. Briff.
Larus Niger. Gefn. Aldrov. Johnft. Ray, &c.
The Scare Crow. Will.
The Black Tern. Penn. and Lath.

So much does this bird refemble the preceding, that in Picardy it has been ftiled the *Black Guifette.* The name of *fcare-crow (epouventail)*

ventail) it probably received from the dark cinereous caſt of its head, neck, and body: its wings only are of a handſome gray, which is the common garb of the ſea-ſwallows. It is nearly as large as the common guifette: its bill is black, and its ſmall legs are of a dull red. The male is diſtinguiſhed by a white ſpot placed under the throat.

Theſe birds have nothing mournful but their plumage, for they are very cheerful, fly inceſſantly, and, like the other ſwallows, make a thouſand turnings and windings in the air. They neſtle among the reeds in marſhes, and lay three or four eggs of a dirty-green, with blackiſh ſpots, that form a zone near the middle *. They alſo purſue winged inſects, and reſemble the preceding ſpecies in all their habits †.

* Willughby.

† *Obſervations communicated by M. Baillon, of Montreuil-ſur-mer.*

[A] Specific character of the Black Tern, *Sterna Fiſſipes*: "Its "body is black, its back cinereous, its belly white, its feet red-"diſh." It is very numerous in the Tartarian deſerts.

The GACHET.

FIFTH SPECIES.

Sterna Nigra. Linn. and Gmel.
Sterna Atricapilla. Briss.
The Lesser Sea Swallow. Albin.

A FINE black covers the head, the throat, the neck, and the top of the breast, like a hood or domino; the back is gray, and the belly white: it is rather larger than the guifettes. The species seems not to be very common on our coasts, but it occurs on those of America, where Father Feuillée has described it *, and

* It seems to be indicated by the name *busc* in the following passage of the navigator Dampier. "We saw some *boobies* and *buscs*, "and at night we took one of the latter: it was different both in "colour and figure from any that I had ever seen; its bill was long "and slender, as in all other birds of this kind; its foot flat like "that of *ducks*; its tail longer, broad, and more forked than that "of *swallows*; its wings very long; the upper side of its head "coally black; small black stripes round its eyes, and a pretty "broad white circle which incloses them on either side; its craw, "its belly, and the upper side of its wings, white; but the back and "the under side of the wings pale black or smokey. . . . These "birds are found in most places between the tropics, as well as in "the East Indies, and on the coast of Brazil; they pass the night on "land, so that they never go more than thirty leagues to sea, unless they are beaten by some storm. When they hover about "vessels, they generally perch at night, and suffer themselves to be "taken without stirring; they make their nests on the hillocks or "the adjacent sea-rocks."

observed

obſerved that it lays on a bare rock two eggs, very large for its ſize, and mottled with dull purpliſh ſpots on a whitiſh ground. The ſubject examined by this traveller was larger than the one deſcribed by Briſſon, who has notwithſtanding ranged them together under the name of *Gachet*.

[A] Specific character of the *Sterna Nigra*: "Its body is hoary, "its head and bill black, its feet red."

The SEA SWALLOW of the PHILIPPINES.

SIXTH SPECIES.

Sterna Panayenſis. Gmel.
The Panayan Tern. Lath.

SONNERAT found this bird in the iſland of Panay, one of the Philippines: it is as large as the common tern, and is perhaps of the ſame ſpecies, modified by the influence of climate; for all the fore ſide of its body is white, the upper ſide of the head is ſpotted with black; and the only difference is, that the wings and tail are grayiſh below, and amber colour above; the bill and feet are black.

The SEA SWALLOW OF GREAT ALAR-EXTENT.

SEVENTH SPECIES.

Sterna Fuliginosa. Gmel.
The Egg-Bird. Forſter and Cook.
The Noddy. Hawkeſworth and Dampier.
The Sooty Tern. Penn. and Lath.

THOUGH all the ſea ſwallows have great extent of wings, that character is more remarkable in this ſpecies, which is not larger than the common tern, and yet meaſures two feet nine inches acroſs the wings. There is a ſmall white creſcent on its front; the upper ſide of the head and of the tail is a fine black, and all the under ſide of the body white; the bill and feet are black. We are indebted to the Viſcount de Querhoënt for the account of this ſpecies, which he found at the iſle of Aſcenſion. "It "is inconceivable," ſays he, "how many ſwal-"lows are ſeen at Aſcenſion; the air is ſome-"times darkened with them, and the little "plains entirely covered: they are very clamo-"rous, and continually pour forth their harſh, "ſhrill cries, exactly like thoſe of the white "owl. They are not timorous; they flew over "my

" my head, and almoſt touching me: thoſe " which ſat on their neſts did not ſpring as I " approached, but ſtruck furiouſly with their " bill when I attempted to take them. Of more " than ſix hundred neſts, I ſaw only three that " contained two chicks or two eggs: all the " reſt had only one. They were placed on the " flat ground, near ſome heaps of ſtones, and " all cloſe beſide each other. In one part of " the iſland, where a flock was ſettled, I found " in all the neſts the young bird already grown, " and not a ſingle egg. Next morning I light- " ed on another colony, where was only one egg " on which incubation had begun, but no " chick: this egg, which ſurprized me by its " magnitude, is yellowiſh, with brown ſpots and " other ſpots of pale violet, more crouded on " the broad end. No doubt theſe birds have " ſeveral hatches in the year. The young are " at firſt covered with a light gray down. When " caught in the neſt, they immediately reject " the fiſh from their ſtomach."

[A] Specific character of the Sooty Tern, *Sterna Fuliginoſa*: " It is black; its under ſide, its cheeks, its front, and the ſhafts of " all its quills, white."

The GREAT SEA-SWALLOW of CAYENNE.

EIGHTH SPECIES.

Sterna Cayanensis. Gmel.
The Cayenne Tern. Lath.

THIS species might be stiled the *greatest sea-swallow*, for it exceeds, by two inches, the common sea-swallow of Europe. It is found in Cayenne: and, like most of the preceding, it has all the under side of the body white; a black hood on the back of the head, and the feathers of the mantle fringed on a gray ground with dilute yellowish or rusty.

WE know only these eight species of sea-swallows: and we remove from this family of birds the *cinereous tern* of Brisson, because its *wings are short*; whereas the extent of wings is the chief character by which nature has distinguished them, and is the source of all their other habits.

The TROPIC BIRD.

L'OISEAU DU TROPIQUE, *ou* LE PAILLE-EN-QUEUE *. *Buff.*

WE have ſeen birds travel from north to ſouth, and with boundleſs courſe traverſe all the climates of the globe: others we ſhall view confined to the polar regions, the laſt children of expiring nature, invaded by the horrors of eternal ice. The preſent, on the contrary, ſeems to attend the car of the ſun under the burning zone, defined by the tropics †: flying perpetually amidſt the tepid zephyrs, without ſtraying beyond the verge of the ecliptic, it informs the navigator of his approach to the flaming barriers of the ſolar track. Hence it has been called the *Tropic Bird*, becauſe it reſides within the limits of the torrid zone.

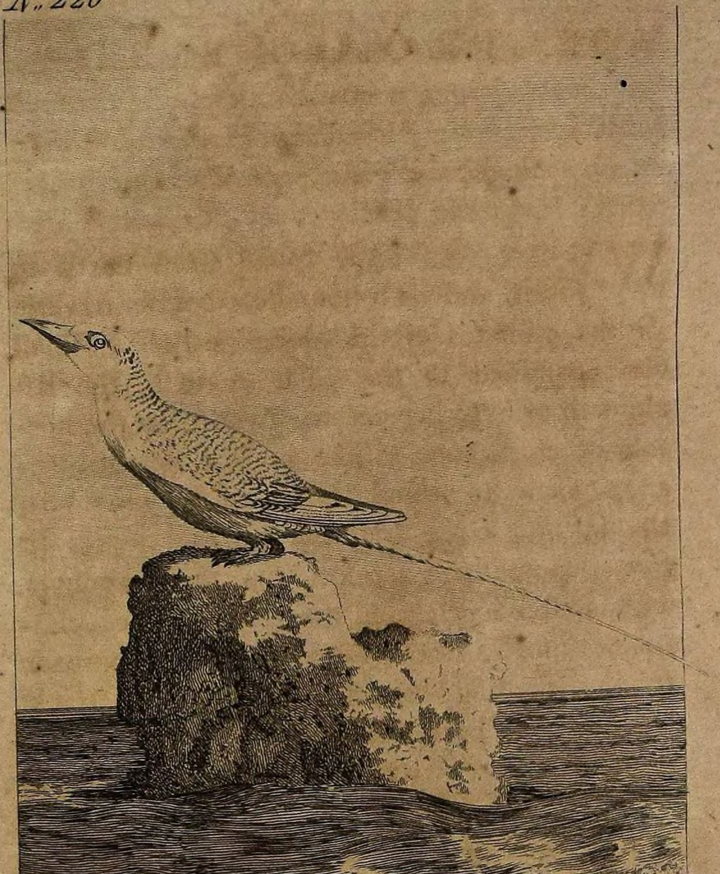
The moſt ſequeſtered iſlands of India and America, ſituated neareſt the equator, ſeem the

* In French *Paille-en-cul*, or *Fetu-en-cul*, (ſtraw-in-arſe) and *Queu-de-fleche* (arrow-tail): the Dutch name *Pylſtaart*, and the Spaniſh *Rabo-de-junco*, ſignify the ſame.

† Probably in this view Linnæus has given it the poetical name of Phaeton, *Phaëton Æthereus*.

favourite

No. 220



THE COMMON TROPIC BIRD.

favourite haunts of theſe birds; ſuch as that of Aſcenſion, St. Helena, Rodrigue, and iſles of France and Bourbon. In the vaſt expanſe of the northern Atlantic, they have ſtrayed to Bermudas, which is their fartheſt excurſion beyond the bounds of the torrid zone *: they traverſe the whole of this ſpace †, and occur again towards the ſouthern limit, where they inhabit the chain of iſlands diſcovered by Captain Cook, the Marquesas, Eaſter iſland, the Society and Friendly iſlands. He found them alſo in open ſea near theſe latitudes ‡: for though their appearance may be regarded as the token of the proximity of land, they uſually rove many hundred leagues, and ſometimes venture to prodigious diſtances §.

Beſides

* "One ſeldom ſees theſe birds except between the tropics and "at great diſtance from land; however, one of the places where "they multiply is near nine degrees beyond the tropic of Cancer; "I mean the Bermudas, where theſe birds breed in the clefts of "the high rocks that gird theſe iſlands." *Cateſby.*

† The Tropic Birds are found in the greater and the leſſer Antilles. See *Dutertre, Labat, Rochefort,* &c.—"In going by ſea "from Fort St. Peter to Fort Royal, in Martinico, diſtant ſeven "leagues, we obſerve lofty cliffs that environ the iſland; in the "holes of theſe rocks the Tropic Birds hatch." *Remark of M. de la Borde, king's phyſician at Cayenne.*

‡ The iſland which Taſman diſcovered in 22° 36′ latitude ſouth, received the name of *Pylſtaart.*

§ "We ſaw a Tropic Bird in 20° latitude north, and 336° longitude. I was ſurprized to find them at ſuch a great diſtance "from land. Our captain, who had made ſeveral voyages to "America, obſerving my ſurprize, aſſured me that theſe birds left "the iſlands in the morning to earn their ſubſiſtence on the vaſt "ocean,

Besides its powerful and rapid flight, the broad and entirely palmated feet of the Tropic Bird enable it, when fatigued with its distant journies, to rest on the surface of the water *. Its toes are connected by a membrane as in the cormorants, the boobies, the frigates, which it resembles by this character, and also by the habit of perching on trees †. Yet it is more analogous to the sea-swallows than to any of these birds: like them, it has long wings which cross on the tail when in a state of repose: its bill too is shaped like theirs, though stronger, thicker, and slightly indented on the edges.

" ocean, and returned in the evening to their quarters; in short, " reckoning southerly, they must have been about 500 leagues " from these islands." *Feuillée*, Observ. 1725, p. 170.

" In 27° 4′ latitude south, and 103° 30′ longitude west, in the " first days of March, we saw Tropic Birds." *Cook*.—" We saw " man-of-war birds, gulls, and Tropic Birds, which we believed to " come from St. Matthew or Ascension, which we had left behind " us." *Id.*—" On the 22d of May, 1767, we were by observation " in 111° longitude west, and 20° 18′ latitude south; the same day " we saw bonettoes, dolphins, and Tropic Birds." *Wallis*.—" Be- " ing in 20° 52′ latitude south, and 115° 30′ longitude west, we " caught for the first time two bonettoes, and we saw several; we " saw also several Tropic Birds." *Byron*.

" In 18 degrees south latitude, on the meridian of Juan Fer- " nandez, running eastward, we saw a number of Tropic Birds." *Le Maire*.—" In 29° latitude south, and about 133° longitude west, " we saw the first Tropic Bird." *Cook*.

* Labat believes that they even sleep on the water.

† " During three months which I passed at Port Louis in the " isle of France, I never observed any sea-bird except some Tropic " Birds, which crossed the roads in their way to the woods." *Remarks made by the Viscount de Querhoënt, on board his Majesty's ship the Victory, in 1773 and 1774.*

 It

It is nearly as large as a common pigeon. The fine white of its plumage would alone suffice to diſtinguiſh it; but its moſt ſtriking character is a long double ſhaft, which appears like a ſtraw fixed into the tail, whence its name in French *. This is formed by the production of the two middle quills of the tail, which is extremely ſhort; they are almoſt naked, edged only with very narrow webs, and they extend twenty-two or twenty-four inches. Often they are of unequal length, and ſometimes only one is ſeen; which may be owing to ſome accident, or to moulting: for in that ſeaſon they drop it, and then the inhabitants of Otaheite and the neighbouring iſlands gather theſe long feathers in their woods, whither theſe birds come to repoſe at night †; the iſlanders weave them into tufts and chaplets for their warriors ‡. The Caribs thruſt them through the *ſeptum* of the noſe, to look handſomer or more ferocious §.

We may readily ſuppoſe, that a bird whoſe flight is ſo free, ſo lofty, ſo vaſt, cannot be re-

* *Paille-en-Queue.*

† "As we ſet out before ſun-riſe, Tahea and his brother, who "accompanied us, took ſea-ſwallows which were ſleeping on the "buſhes along the road; they told us, that many water fowls came "to repoſe on the mountains after flying the whole day at ſea in "queſt of food, and that the Tropic Bird in particular repaired to "theſe retreats. The long feathers of its tail, which it ſheds an-"nually, are commonly met with on the ground, and the natives "are eager to find them." *Forſter.*

‡ *Idem.*

§ Dutertre.

conciled

conciled to captivity *. Its ſhort legs placed behind render it as heavy and aukward on the ground as it is nimble and active in the air. Sometimes the Tropic Birds, ſpent by the bluſtering of ſtorms, alight on ſhips' maſts, and ſuffer themſelves to be taken with the hand †. Leguat, the navigator, ſpeaks of a diverting conteſt between them and his ſailors, whoſe caps they ſnatched off ‡.

The Tropic Birds have been divided into two or three kinds, which ſeem to be only varieties nearly allied to the common ſtock. We proceed to enumerate theſe, without pretending that they are ſpecifically different.

* "I kept a long time a young Tropic Bird; I was obliged, "though it was conſiderably grown, to open its bill to make it "ſwallow food; it would never eat without aſſiſtance. As much as "theſe birds are nimble on wing, they are heavy and ſtupid in the "cage. As their legs are very ſhort, all their motions are con-"ſtrained: mine ſlept almoſt the whole day." *Remarks made at the iſle of France, by the Viſcount de Querhoënt.*

† Hiſt. Univer. des Voyages, par Montfraiſier; *Paris*, 1707, *p*. 17.

‡ "Theſe birds annoyed us in a ſingular manner; they ſurprized "us behind, and ſnatched the caps from our heads; and theſe at-"tacks were ſo frequent and ſo troubleſome, that we were obliged "to hold ſticks conſtantly in our hands for defence. We prevented "them ſometimes, when we ſaw before us their ſhadow the moment "they were about to make their aim. We could never underſtand "what uſe our caps could be to them, or what they did with thoſe "which they had carried off." *Voyages & Aventures de Francis Leguat*; *Amſterdam*, 1708. *tom*. i. *p*. 107.

The GREAT TROPIC BIRD.

FIRST SPECIES.

Phaeton Æthereus. Linn. and Gmel.
Lepturus. Briſſ.
Avis Tropicorum. Ray and Will.
Plancus Tropicus. Klein.

THIS exceeds the bulk of a large dove-houſe pigeon; its ſhafts are near two feet long; all its plumage is white, with little broken black lines above the back, and a black ſtreak, in faſhion of a horſe-ſhoe, incloſes the eye at the inner corners; the bill and feet are red. It is found in the iſland of Rodrigue, and in that of Aſcenſion, and at Cayenne; and ſeems the largeſt of the genus.

[A] Specific character of the *Phaeton Æthereus:* "It is white; "its back, its rump, and the leſſer coverts of its wings, ſtreaked with "black; its two middle tail-quills black at the baſe; its bill red." It ſometimes roves immenſe diſtances beyond the tropics: Linnæus mentions the latitude of 47½ degrees as the limit; and I myſelf ſaw one nearly in that parallel, between the Bank of Newfoundland and the Channel. Linnæus adds, that the Tropic Bird feeds on mackarels, dolphins, and ſharks (I ſuppoſe he means the dead carcaſes that ſometimes float on the ſurface).

The LITTLE TROPIC BIRD.

SECOND SPECIES.

Phaeton Æthereus. var. 1. Linn. and Gmel.
Lepturus Candidus. Briſſ.
Alcyon Media Alba. Brown.

THIS is ſcarce equal in ſize to a common ſmall pigeon. Like the preceding, it has the horſe-ſhoe about the eye, and is beſides ſpotted with black on the feathers of the wings neareſt the body, and on the great quills: all the reſt of its plumage is white, and alſo its long ſhafts. The edges of the bill, which in the great Tropic Bird were ſerrated with reflected inciſures, are much leſs ſo in this. It vents at intervals a ſmall cry, *chiric, chiric,* and makes its neſt in the holes of craggy rocks: it lays two eggs, according to Father Feuillée, which are bluiſh, and rather larger than thoſe of a pigeon.

On comparing ſeveral individuals of this ſecond kind, in ſome we remarked reddiſh or fulvous tints on the white ground of the plumage. This variation proceeds, we preſume, from the tender age; and to the ſame cauſe we would attribute the *fulvous* caſt, deſcribed by

 Briſſon,

Briſſon *, eſpecially as he repreſents that bird as rather ſmaller than his *white* one. We alſo perceived conſiderable diverſity in the bulk of theſe birds. Many travellers have aſſured us, that the young ones are not pure white, but ſpotted or ſtained with brown or blackiſh: they differ alſo, becauſe their ſhafts and feet, inſtead of being red, are pale blue. We muſt, however, obſerve, that though Cateſby affirms, in general, that theſe birds have their bill and legs red, this is not invariably true, but of the preceding ſpecies and of the following; for in this ſpecies, which is the moſt common in the iſle of France, the bill is yellowiſh, like horn, and the legs are black.

* "Tawny white; a bar above the eyes; the ſcapular feathers "near their extremity, and a ſtripe above the wings, black; the tail-"quills tawny white, their ſhafts blackiſh at the origin." *Lepturus Fulvus.*

The RED-SHAFTED TROPIC BIRD.

THIRD SPECIES.

Phaeton Phœnicurus. Linn. and Gmel.
The Red-tailed Tropic Bird. Lath.

THE two long ſhafts of the tail are of the ſame red with the bill; the reſt of the plumage is white, except ſome black ſpots on

 the

the wing near the back, and a black horſe-ſhoe which environs the eye. The Viſcount de Querhoënt was ſo obliging as to communicate the following note on this bird, which he obſerved at the iſle of France. " The Red-ſhafted " Tropic Bird breeds in this iſland, as well as " the common tropic bird; the latter in the " hollow trees of the principal iſland, the for- " mer in the cavities of the ſmall neighbouring " iſlets. The Red-ſhafted Tropic Bird is ſcarce " ever ſeen on land; and, except in the ſeaſon " of courtſhip, the common tropic bird ſeldom " comes aſhore. They live by fiſhing at large, " and come to repoſe on the ſmall iſle of *Coin-* " *de-Mire*, which is two leagues from the iſle of " France, and is the haunt of many other ſea " birds. It was in September and October that " I found the neſts of the tropic birds: each " contained only two eggs of a yellowiſh white, " marked with ruſty ſpots. I was aſſured, that " no more than one egg is found in the neſt of " the great tropic bird: and none of the ſpecies " ſeem to be numerous*."

None

* " While I was ſeeking for them, chance led me to be ſpectator " of a fight between the *martins* and the *Tropic Birds*: having been " directed into a wood, where I was told that theſe birds had ſet- " tled, I ſat myſelf down at ſome diſtance from the tree marked, " where I ſaw ſeveral martins collect: a ſhort while after the Tro- " pic Bird arrived to enter its hole; and the martins ruſhed upon it " and attacked it on all ſides, and though it has a very ſtrong bill, " it was obliged to flee; it made ſeveral attempts, which were not

" more

None of these three species or varieties, which we have just described, appears attached to any particular spot; often the two first or the two last are found together; and the Viscount de Querhoënt says, that he saw all the three collected at the island of Ascension.

"more fortunate, though assisted at length by its mate. The martins, "proud of their victory, did not quit the tree, and were on it when "I left them." *Sequel of the Viscount de Querhoënt's note.*

[A] Specific character of the *Phaeton Phœnicurus*: "It is of a "very pale rose-colour; its bill, and its two middle tail-quills, are "red."

The BOOBIES.

Les Fous *. *Buff.*

In every well organized being, inſtinct diſplays itſelf by a chain of conſiſtent habits, which all tend to its preſervation; and this internal ſenſe directs them to ſhun what is hurtful, and to ſeek what may contribute to the ſupport, and even the enjoyment, of life. The birds that we are now to ſurvey, have received from nature only half that faculty: large and ſtrong, armed with a firm bill, provided with long wings, and with feet completely and broadly palmated, they are fitted to exerciſe their powers both in the air and in the water, they are invited to act and to live; yet they ſeem ignorant what exertions they ſhould make, or what precautions they ſhould obſerve, to eſcape that death which perpetually threatens them. Though diffuſed from one end of the world to the other, from the ſeas of the north to thoſe of the ſouth, they have no where learnt to diſtinguiſh their moſt dangerous enemy: the ſight of man does not intimidate or diſcompoſe them. They ſuffer themſelves to

* By the Portugueſe ſettlers in India, they are called *Paxaros Bobos*, or the fooliſh birds.

be

be taken, not only at ſea on the ſhips' yards *, but alſo at land, on the iſlets and coaſts, where they may be felled by blows with a ſtick, in great numbers, one after another, and yet the ſtupid flock will make no effort to eſcape †. This inſenſibility to danger proceeds neither from reſolution nor courage: ſince they can neither reſiſt nor defend, ſtill leſs can they attack, though their ſtrength and their armour might render them formidable ‡. It originates, therefore, from ſtupidity and imbecility.

As

* Theſe birds are called *Boobies* (Fous) becauſe of their great ſtupidity, their ſilly aſpect, and their habit of continually ſhaking the head and ſhivering when alighted on ſhips' yards, or other parts, where they ſuffer themſelves to be taken by the hand. *Feuillée.*—If the Booby ſees a ſhip, either in open ſea or near land, it will come to perch on the maſts; and ſometimes, if a perſon ſtretches out his hand, the bird will alight upon it. In my voyage to the iſlands, there was one which paſſed ſo often over my head, that I transfixed it with a half-pike. *Dutertre.*—Theſe birds are not at all ſhy, either on land or at ſea; they approach a veſſel without ſeeming to fear any thing, when they chance to come in the way: the report of a fowling-piece, or any other noiſe, will not deter them. I have ſometimes ſeen one of theſe ſolitary Boobies come to rove about the ſhip at evening, and to alight on the yards, where the ſailors caught them without their ſhewing the ſmalleſt inclination to eſcape. *Obſervations communicated by M. de la Borde, King's phyſician at Cayenne.* See alſo Labat, *Nouveau Voyage aux îles de l'Amerique: Paris*, 1722, *tom.* vi. *p.* 481. Leguat, *tom.* i. *p.* 196.

† It is a very ſilly bird, and will hardly get out of peoples' way. *Dampier.*—In this iſland of Aſcenſion, the Boobies are ſo numerous, that our ſailors killed five or ſix with one blow of a ſtick. *Gennes.*—Our ſoldiers killed an aſtoniſhing quantity of them at the ſame iſland of Aſcenſion. *Viſcount de Querhoënt.*

‡ The Boobies are certain birds ſo called, becauſe they ſuffer themſelves to be caught by the hand: they paſs the day on the rocks, which

As the mental powers and the moral qualities of animals are derived from their constitution, we must attribute the excessive sluggishness and helpless security of the Boobies to some physical cause; and this, most probably, is the difficulty of putting their long wings in motion *.

But man is not their only foe; their want of courage exposes them to another enemy, which perpetually harrasses them. This is the frigat, or man-of-war bird. It rushes upon the Boobies which it descries, pursues them without intermission, and obliges them, by blows with its wings and its bill, to surrender their prey, which it instantly seizes and swallows †: for the silly, cowardly

which they never leave but when they go a-fishing; in the evening they retire to the trees, and, after they are once perched, I am persuaded they would not quit, though these were set on fire: and they will all suffer themselves to be taken without stirring from the spot; however they try to do their best in defence with their bill, but they cannot hurt a person. *History of the Buccaneers*, 1686.

* We shall see that the frigat itself, notwithstanding its vigorous wing, has the same difficulty in taking its flight.

† I had the pleasure to see the frigats give chase to the Boobies: when they retire in bodies at evening from the labours of the day, the frigats watch their return, and, rushing on, oblige them to scream for assistance, and to disgorge some fish, which they carry to their young. *Feuillée*.—The Boobies repair at night to repose on the island of Rodrigue, and the frigats, which are large birds, and so called because of the rapidity of their flight, wait for them every evening on the tops of the trees; they rise very high, and dart down upon them like a hawk upon his prey, not to kill them, but to make them disgorge; the Booby, struck in this way by the frigat, throws up a fish, which the latter snatches in the air: often the Booby screams, and discovers a reluctance to part with its booty; but the frigat scorns its cries, and, rising again, comes down with such a blow as to stun the poor bird, and compel an immediate surrender. *Leguat*.

cowardly Boobies difgorge at the firft attack, and return to feek new prey, which they often lofe by a fecond piracy *.

The Boobies hover above the furface of the water, fcarce moving their wings, and drop on the fifh the inftant it emerges †. Their flight, though rapid and well fupported, is greatly inferior to that of the frigat. Accordingly, they do not roam fo far, and their appearance is regarded by navigators as a pretty certain fign of the nearnefs of fome land ‡. Yet feveral of thefe

* Catefby defcribes fomewhat differently the fkirmifhes of the Booby and its enemy, which he calls the *pirate*. "The latter," fays he, "fubfifts entirely on the fpoils of others, and particularly "of the Booby. As foon as the pirate perceives that it has caught "a fifh, he flies furioufly againft it, and obliges it to dive under water for fafety; the pirate not being able to follow it, hovers above "the water till the Booby is obliged to emerge for refpiration, and "then attacks it again while fpent and breathlefs, and compels it "to furrender its fifh; it now returns to its labours, and has to fuffer frefh attacks from its indefatigable enemy."

† Ray.

‡ The Boobies do not go very far to fea, and feldom lofe fight of land. *Forfter*.—A few days after our departure from Java, we faw Boobies about the fhip for feveral nights together; and as thefe birds go to rooft on land in the evening, we conjectured that there was fome ifland near us; perhaps it was the ifland of Selam, whofe name and pofition are very differently marked on the charts. *Cook*.—Our latitude was 24° 28′ (on the 21ft May 1770, near New Holland); we had found on the preceding days feveral fea birds, called Boobies, but we had not that fight to-day. On the night of the 21ft, there paffed near the fhip a fmall flock flying to the north-weft; and in the morning, from an hour before fun-rife to half an hour after, there were continual flights that came from the north northweft, and difappeared toward the fouth fouth-eaft; we faw none that took

theſe birds frequent our northern coaſts *, and occur in the remoteſt and moſt ſequeſtered iſlands in the midſt of the ocean †. There they live in companies, with the gulls, the tropic birds, &c. and the frigat, their inveterate foe, has followed them to their retreats.

Dampier gives a curious account of the hoſtilities between the man-of-war birds and the Boobies, in the Alcrane iſlands, on the coaſt of Yucatan. "Theſe birds were crowded ſo thick "that I could not," he ſays, "paſs their haunt "without being incommoded by their pecking. "I obſerved that they were ranged in pairs, "which made me preſume that they were male "and female. When I ſtruck them, ſome flew "away,

took another direction, which led us to ſuppoſe, that at the bottom of a deep bay lying ſouth of us, there was a lagoon, or ſhallow river, whither theſe birds repaired to ſeek their food during the day, and that on the north of us there was ſituated ſome iſland to which they retired. *Cook.—Note*, We muſt confeſs that ſome voyagers, and among others Father Feuillée, ſay that Boobies are found ſeveral hundred leagues at ſea; and that Captain Cook himſelf ſeems to reckon them, at leaſt in certain circumſtances, as more certain tokens of the proximity of land than the frigats, with which he claſſes them in the following paſſage. "The weather was pleaſant, and "every day we ſaw ſome of the birds which are eſteemed to be "ſigns of nearneſs of land, ſuch as Boobies, frigats, tropic birds, "and gulls. We believed that they came from the iſland of St. "Matthew or Aſcenſion, which we had left pretty near us."

* See the article of the Gannet.

† At Rodrigue, *Leguat*: at Aſcenſion, *Cook*: at the Calamiane iſlands, and at Timor, *Gemelli Careri*: at Sabuda in New Guinea, and at New Holland, *Dampier*: in all the iſlands ſcattered under the ſouthern tropic, *Forſter*: in the Great Antilles, *Feuillée, Labat, Dutertre*, &c.: in the Bay of Campeachy, *Dampier*.

" away, but the greater number remained, and " would not ſtir for all I could do to rouze them. " I remarked alſo, that the man-of-war birds " and the Boobies always placed ſentinels over " their young, eſpecially when they went to ſea " for proviſion. Of the man-of-war birds, many " were ſick or maimed, and ſeemed unfit to " procure their ſubſiſtence. They lived not " with the reſt of their kind, whether they " were expelled from the ſociety, or had ſepa-" rated from choice: theſe were diſperſed in " different places, probably that they might have " a better opportunity of pillaging. I once ſaw " more than twenty on one of the iſlands " ſally out from time to time into the open " country, to carry off booty, and they returned " again almoſt immediately. When one ſur-" prized a young Booby that had no guard, he " gave it a violent peck on the back to make it " diſgorge, which it did inſtantly: it caſt up " one or two fiſh about the bulk of one's hand, " which the old man-of-war bird ſwallowed ſtill " more haſtily. The vigorous ones play the " ſame game with the old Boobies which they " find at ſea. I ſaw one myſelf which flew right " againſt a Booby, and with one ſtroke of its " bill, made him deliver up a fiſh which he had " juſt ſwallowed. The man-of-war bird darted " ſo rapidly as to catch it in the air before it " could fall into the water."

The Boobies reſemble moſt the cormorants in their

their ſhape and organization, except that their bill is not terminated in a hook, but in a point ſlightly curved: they differ alſo, becauſe their tail projects not beyond their wings. They have their toes connected by a ſingle piece of membrane; the nail of the mid-one is ſerrated on the inſide: their eyes are encircled by a naked ſkin; their bill is ſtraight, conical, and ſomewhat hooked at the end, and the ſides are finely indented; the noſtrils are not apparent, and their place is occupied only by two hollow channels. But the moſt remarkable property of the bill is, that the upper mandible is articulated, as it were, and formed of three pieces joined by two ſutures; the firſt is traced near the point, which therefore appears like a detached nail; the ſecond is ſituated at the root of the bill near the head, which enables the bird to raiſe the tip of its upper mandible two inches, without opening the bill *.

Theſe birds utter a loud cry, partaking of that of the raven and of the gooſe; and this is heard particularly when they are purſued by the frigat, or when, aſſembled together, they are ſeized by ſome ſudden panic †. In flying they ſtretch out the neck, and diſplay the tail. They cannot begin

* "What is moſt remarkable in theſe birds, the upper mandible, " two inches below the mouth, is jointed in ſuch manner that it can " riſe two inches above the lower mandible, without the bill being " opened." *Cateſby.*

† "We had been hunting goats at night (in the iſland of Aſ- " cenſion); the reports of the piece which we fired had fright- " ened

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THE COMMON BOOBY.

begin their motion but from ſome lofty ſtation, and therefore they perch like cormorants. Dampier remarks, that in the iſle of Aves they breed on trees, though in other places they neſtle on the ground, and always a number in the ſame haunt; for a community, not of inſtinct but of weakneſs, ſeems to collect them together. They lay only one or two eggs. The young ones continue long covered, for the moſt part, by a very ſoft and white down.—The other particulars will beſt appear in the enumeration of their ſpecies.

" ened the Boobies in the neighbourhood: they all ſcreamed toge-
" ther, and the reſt replied at ſhort diſtances, which made a hideous
" din." *Note communicated by the Viſcount de Querhoënt.*

The COMMON BOOBY.

FIRST SPECIES

Pelecanus-Sula. Linn. and Gmel.
Sula. Briſſ.
Plancus Morus. Klein.

THIS bird, which ſeems to be moſt common in the Antilles, is of a middle ſize between the duck and the gooſe: its length, from the end of the bill to that of the tail, is two feet five inches, and a foot eleven inches to the extremities of the nails: its bill is four inches and

and a half, and its tail is near ten; the naked ſkin which encircles the eye is yellow, and ſo is the baſe of the bill, whoſe point is brown; the legs are ſtraw-coloured *; the belly is white, and all the reſt of the plumage is brown cinereous.

Simple as this garb is, it is inſufficient, as Cateſby obſerves, to characterize the ſpecies, ſo many are the individual varieties which it contains. " I obſerved," ſays he, " one that had " a white belly and a brown back; another, " whoſe breaſt and belly were white, and others " which were entirely brown." Some travellers ſeem to denominate this ſpecies the *fulvous bird* †. The fleſh is black, and has a marſhy flavour; yet the ſailors and adventurers of the Antilles often fed on it. Dampier relates, that a ſmall French fleet, being caſt on the iſle of Aves, partly ſubſiſted on theſe birds, and made ſuch conſumption of them, that the number there has ſince been much diminiſhed.

* Cateſby.

† The birds which the French in the Antilles call *fauves*, becauſe of the colour of their back, are white under the belly; they are of the bulk of a water-hen, but are uſually ſo lean that their plumage is the only part of them the leaſt valuable: they have the feet of ducks, and the pointed bill of woodcocks; they live on ſmall fiſh, like the frigats, but they are the moſt ſtupid of the birds, either at ſea or on land, in the Antilles; ſince, whether that they eaſily tire on wing, or that they take the ſhips for floating rocks, as ſoon as they perceive one, eſpecially if towards night, they immediately come to alight upon it, and are ſo ſilly as to ſuffer themſelves to be taken by the hand. *Hiſtoire Naturelle & Morale des Antilles*; *Rotterdam*, 1658, *p.* 148.

They

They are found in great numbers not only on the iſle of Aves, but in that of Remire, and eſpecially at the *Grand-Connétable*, a rock ſhaped like a ſugar-loaf, riſing apart in the ſea, within ſight of Cayenne *. Multitudes alſo occur on the iſlets which lie along the ſhores of New Spain and Caracca †. And the ſame ſpecies ſeems to be met with on the coaſt of Brazil ‡, and on the Bahama iſlands, where, it is aſſerted, they lay every month of the year two or three eggs, or ſometimes only one, on the naked rocks §.

* Barrere, *France Equinoxiale, p.* 122.

† What makes theſe birds and many others ſo extremely numerous on theſe ſhores, is the incredible ſwarms of fiſh which attract them: a perſon can ſcarce let down into the water a line with twenty or thirty hooks, but he finds, on drawing it up, a fiſh hanging from each.

‡ On theſe iſlands (of St. Anne, on the coaſt of Brazil) numbers are found of large birds, called Boobies *(fous)* becauſe they allow themſelves to be eaſily caught: in a ſhort time we took two dozen . . . Their plumage is gray; they are ſkinned like hares. *Lettres Edifiantes,* xv. *Recueil, p.* 339.

§ Cateſby.

[A] Specific character of the Booby, *Pelecanus-Sula:* "Its tail "is wedge-ſhaped, its body whitiſh, its primary wing-quills black "at the tip, its face red."

The WHITE BOOBY.

SECOND SPECIES.

Pelecanus-Piscator. Linn. and Gmel.
Sula Candida. Briss.
The Lesser Gannet. Lath.

We have remarked, that there is much diversity of white and brown in the preceding species, yet we cannot class this with it; the more so as Dutertre, who saw both alive, distinguished them from one another. They are indeed very different, since what is white in the one is brown in the other; viz. the back, the neck, and the head, which is besides rather smaller. It appears also to be less stupid; it seldom perches on trees, and still less does it suffer itself to be caught on the ships' yards; yet it inhabits the same places with the preceding, and both are found on the island of Ascension. "There are," says the Viscount de Querhoënt, "in this island, thousands of common "Boobies; the white are less numerous; both "kinds are seen perched upon heaps of stones, ge-"nerally in pairs. They are found at all hours, and "will never stir till hunger obliges them to fish. "Their general resort is on the windward side of the "island.

"island. They may be approached in broad "day, and caught even by the hand. There are "Boobies also which differ from the preceding: "when at sea, in the latitude of 10° 36′ north, "we saw some whose head was entirely "black *."

* Captain Cook found White Boobies on Norfolk island.

[A] Specific character of the Lesser Gannet, *Pelecanus Piscator*: "Its tail is wedge-shaped; its body white; all its wing-quills "black; its face red."

The GREAT BOOBY.

THIRD SPECIES.

Pelecanus Bassanus, var. 1. Linn. and Gmel.
Sula Major. Briss.

This bird is the largest of its genus, being equal to the goose, and its wings measuring six feet across: its plumage is deep brown, sprinkled with small white spots on the head, with broader ones on the breast, and with others still broader on the back; the belly is dirty white. The colours are more vivid in the male than in the female.

This large bird is found on the coasts of Florida, and on the great rivers of that country. "It

"It dives," ſays Cateſby, "and remains a con-
"ſiderable time under water, where I imagine it
"chances on ſharks and other voracious fiſh,
"which often maim or deſtroy it; for I ſeveral
"times found theſe birds wounded or dead on
"the beach."

An individual of this ſpecies was taken in the neighbourhood of the city of Eu, on the 18th of October, 1772. No doubt it had been ſurprized far at ſea by rough weather, and driven by the violence of the wind upon our coaſts. The perſon who found it had only to throw his coat over it: it was kept ſome time; at firſt it would not ſtoop to take a fiſh, but required it to be held as high as its bill. It ſat always ſquat, and was averſe to motion; but after being accuſtomed to live on land, it walked and became familiar; it even importunately followed its maſter, making at intervals a ſhrill raucous cry *.

* Extract of a letter from the Abbe Vincent, profeſſor in the college of the city of Eu, inſerted in the *Journal de Phyſique* for June, 1773.

The LITTLE BOOBY.

FOURTH SPECIES.

Pelecanus Parvus. Gmel.
The Lesser Booby. Lath.

This is the least of the Boobies known: its length, from the end of the bill to that of the tail, is scarcely a foot and half; the throat, the stomach, and the belly, are white, and all the rest of the plumage is blackish. It was sent to us from Cayenne.

The LITTLE BROWN BOOBY.

FIFTH SPECIES.

Pelecanus Fiber. Linn. and Gmel.
Fiber Marinus. Feuillée.
Larus Piscator Cinereus. Klein.
Sula Fusca. Briss.

This bird differs from the preceding, being entirely brown; and though it is also larger, it equals not the common Booby. We

 therefore

therefore range theſe ſpecies ſeparately, till new obſervations inform us whether they ought to be joined. Both of them inhabit the ſame places, and particularly Cayenne and the Caribbee iſlands.

[A] Specific character of the *Pelecanus Fiber*: "Its tail is "wedge-ſhaped; its body duſkiſh; all its wing-quills blackiſh; its "face red."

The SPOTTED BOOBY.

SIXTH SPECIES.

Pelecanus Maculatus. Gmel.

THE colours and bulk of this bird might refer it to the third ſpecies, did it not differ in the exceſſive ſhortneſs of its wings. Indeed, we ſhould almoſt doubt, whether it belonged to the Boobies, but for the characters of its bill and feet. It is equal to the great diver, and as in it, the ground of the plumage is blackiſh brown, wholly ſpotted with white, more delicately on the head, and broader on the back and wings; the ſtomach and belly are waved with browniſh, on a white ground.

[A] Specific character of the *Pelecanus Maculatus*: "It is "brown ſpotted with white; below white, waved and ſpotted with "brown; its bill, its wing-quills, its tail, and its feet brown."

The GANNET.

Le Fou de Bassan. *Buff.*

Pelecanus Baſſanus. Linn. and Gmel.
Sula Baſſana. Briff.
Anſer Baſſanus. Sibbald, Ray, Charleton, &c.
Anſer Baſſanus, vel Scoticus. Geſner, Aldrov. &c.
Sula Hoieri. Cluſius and Will.
The Solan Gooſe *. Will. and Alb.

THE Baſs-iſle is a ſtupendous rock in the Firth of Forth, not far from Edinburgh. It is the reſort of theſe large and beautiful birds, which have been reckoned peculiar to it †: but Cluſius and Sibbald aſſure us, that it occurs alſo on the Craig of Ailſa ‡ in the Firth of Clyde, and in the Hebrides § and the Feroe iſlands ||.

This bird is as large as a gooſe; it is near three feet long, and more than five feet acroſs

* In Norwegian *Sule, Hav-Sule.*

† Ray.

‡ Sibbald.

§ Some perſons aſſure us, that theſe Boobies are at times driven by adverſe winds on the coaſts of Brittany, and that one was ſeen even in the vicinity of Paris.

|| Hector Boece, in his deſcription of Scotland, ſays, that theſe birds alſo neſtle on the Hebrides; but what he adds, that for this purpoſe they bring as much wood as to ſupply the inhabitants, ſeems fabulous; eſpecially as the Gannets of the Baſs lay, like the other boobies of America, on the naked rock.

the

the wings: it is entirely white, except the primaries of the wing, which are brown or blackish, and the back of the head, which is tinged with yellow *: the cere is of a fine blue, and also the bill, which extends six inches, and opens so wide as to admit a large mackerel; nor does this enormous morsel always satisfy its voracity. M. Baillon sent us a Gannet that was taken in open sea, and which had choaked itself in swallowing a very large fish †. Near the Bass, and at the Hebrides, they subsist generally on herrings. Their flesh contracts a fishy taste: but the young ones are always very fat ‡; and persons descend among the crags to rob the nests §. The old ones might easily be felled with sticks or stones ||, but they are unfit for eating.

* I am inclined to believe that this is a mark of age; this yellow spot is of the same nature with that on the lower part of the neck of the spoon-bills: I have seen some wherein it was golden; the same thing happens to white hens, which turn yellow as they grow old. *Note communicated by M. Baillon.*—Ray is of the same opinion; and Willughby relates, that the young ones are at first marked with brown or blackish on the back.

† Sent from Montreuil-sur-mer, by M. Baillon, December, 1777. The story related by Gesner is fabulous, that, on seeing another fish, it disgorges the one which it had just swallowed.

‡ Gesner says, that the Scotch make an excellent kind of ointment of the fat of these birds.

§ "The art of cookery," says Sir Robert Sibbald, "cannot form "a dish of such delicate flavour, and combining the tastes of fish "and flesh, as a roasted Solan goose; and the young grown ones "are deservedly esteemed delicacies with us, and sell at a high "price."

|| *Note communicated by James Bruce, Esq*; 30*th of May*, 1774.

ing *. They are as ſilly as the other boobies †.

They breed in all the clefts of the Baſs, and lay but one egg ‡. The people ſay that they hatch it ſtanding on one foot §, a notion ſuggeſted probably by the breadth of its ſole ‖. It is widely palmated, and the middle and outer toes are each near four inches long, and all the four are connected by an entire piece of membrane: the ſkin does not adhere to the body; it is connected to it only by ſmall bundles of fibres placed at equal diſtances, ſuch as one or two inches, and capable of being extended as much; ſo that the ſkin may be drawn out like a membrane, and inflated like a bladder. The bird, no doubt, thus ſwells itſelf to diminiſh its ſpecific gravity, and facilitate its flight; yet no ducts can be traced from the thorax to the cuticle: but perhaps the air penetrates it through the cellular texture, as in many other birds. This obſervation, which will certainly apply to

* "It is a bird exceſſively fœtid; in preparing the ſpecimen "for my cabinet, my hands retained the ſmell more than a fort-"night; and though I dipt the ſkin in alkaline lye, and ſeveral "times fumigated it with ſulphur in the courſe of two years, its "odour ſtill adheres to it." *Note communicated by M. Baillon.*

† *In domibus nutrita ſtupidiſſima avis.* Sibbald.

‡ Sibbald.

§ Mr. Bruce.

‖ Hence, it is alledged, they received the name of *Sole-an-geeſe*; but Martin informs us, that this word is of Iriſh or Erſe derivation, and ſignifies quick-ſighted; theſe birds being noted for the bright luſtre of their eyes.—*T.*

all

all the ſpecies of boobies, was made by M. Daubenton the younger, on a Gannet, ſent freſh from the coaſt of Picardy.

The Gannets arrive in ſpring on the iſlands of the north, and retire in autumn *, and advance farther ſouth. Perhaps, if their migrations were well known, it would be found, that they join the other ſpecies of boobies on the coaſts of Florida; the general rendezvous of all the birds which deſcend from the boreal regions, and have vigour of wing ſufficient to traverſe the Atlantic ocean.

* Sibbald.

[A] Specific character of the Gannet, *Pelecanus Baſſanus*: "Its "tail is wedge-ſhaped; its body white; its bill, its primary wing-"quills black; its face blue." It has a ſmall dilatable pouch under its chin, able to contain five or ſix herrings, which, in the breeding ſeaſon, it carries to its family. Its legs and toes are black, with a ſtripe of fine velvet green on the fore part: the tail contains twelve ſharp taper quills. The egg is white, and rather ſmaller than that of a common gooſe: if it be removed, the bird will lay another; and if this be equally unfortunate, ſhe will even lay a third. The neſt is large, and compoſed of ſubſtances that float on the water, as ſea-weeds, fog, ſhavings, &c. It is very probable, that the Gannets attend the progreſs of the herrings; the fiſhermen reckon them a ſure ſign of the approach of the ſhoal. In December, theſe birds are frequently ſeen near Liſbon, diving for ſardines, a kind of pilchards. They deſcend from a vaſt height, and plunge many fathoms under water. In Scotland they are uſually called *Solan-geeſe*; in Cornwall and Ireland *Gannets*; and in Wales *Gan*. The inhabitants of St. Kilda, we are aſſured by Martin, take often 22,600 of the young birds annually, beſides a prodigious number of eggs. Theſe ſpoils are the chief ſubſiſtance of theſe hardy iſlanders, and they ſtore up their proviſions in pyramidal ſtone buildings, covering them over with peat-aſhes. The Craig of Ailſa reſembles much in appearance the Baſs-iſle: of the latter,

latter, we have an elegant defcription, by the immortal difcoverer of the circulation of the blood, Dr. Harvey.

I fhall take the liberty of fubjoining a tranflation of it: "There "is a fmall ifland which the Scotch call the *Bafs*, not above a mile "in circuit. In the months of June and July, the furface of this "ifland is fo ftrewed with nefts, and eggs, and young birds, that a "perfon can hardly fet his foot without treading on them. And fo "vaft is the multitude of thofe which fly over head, that like clouds, "they darken the fun and the fky; and fuch is their clangorous "noife, that you can fcarce hear the voice of your companions. "If from the fummit of the lofty precipice, you look towards the "fea which fpreads below, you will perceive, wherever you turn "your eyes, birds innumerable of various kinds, fwimming and "hunting for their prey. If failing round, you furvey the im-"pending cliff, you will fee in every crag and fiffure of the indent-"ed rock, birds of all forts and fizes, which would out-number the "ftars that appear in a clear night. If from a diftance you be-"hold the flocks roving about the ifland, you would imagine them "to be a vaft fwarm of bees."—*De Generat. Animal.* Exer. 2.

The FRIGAT.

La Fregate. *Buff.*

Pelecanus Aquilus. Linn. and Gmel.
Fregata. Briſſ.
Fregata Avis. Ray, Will, &c.
The Man-of-War Bird. Brown, Damp. and Sloane.
The Frigat Bird. Alb. and Penn.
The Frigat Pelican. Lath.

The ſteadineſs and rapidity with which this bird moves through the air, have procured it the name of *Frigat*. It ſurpaſſes all the winged ſailors in the boldneſs, the vigour, and the extent of its flight; poiſed on wings of prodigious length, which ſupport it without perceptible motion, it ſwims gently through the tranquil air, waiting to dart on its prey with the rapidity of a flaſh: but if the atmoſphere is embroiled with tempeſts, the Frigat, nimble as the wind, aſcends above the clouds, and ſtretches beyond the region of ſtorms *. It journies in all directions, and either mounts upwards or glides horizontally; and it often roams to a diſtance of ſeveral hundred leagues †: and

* Ray.

† *Idem.*—" There is no bird in the world that flies higher, " longer, or more eaſily, and which roves farther from land. . . . It is " found

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THE FRIGAT PELICAN.

and theſe immenſe excurſions are performed by a ſingle flight; and as the day is inſufficient, it purſues its route during the darkneſs of the night, and never halts on the ſea, but when invited by the abundance of prey *.

The flying-fiſhes, whoſe columns are purſued by the bonettoes, dolphins, &c. when driven to extremity, ſpring out of the water, but eſcape not the Frigats: it is in queſt of theſe fiſhes that they roam ſo far from the land; they diſcern at a vaſt diſtance † the progreſs of their phalanxes, which ſometimes are ſo compacted as to make a rippling, and to whiten the face of the ocean. Then the Frigats ſhoot with downward flight, and bending along the ſurface of

" found in the midſt of the ocean, three or four hundred leagues " from land; which ſhows its prodigious ſtrength and its ſurprizing " lightneſs: for it cannot reſt on the water like the water-fowl, " ſince its feet are not calculated for ſwimming, and its wings are " ſo large, that they require room to begin their motion; if there-" fore it fell on the water, its efforts would be fruitleſs, and it could " never riſe again. We may hence conclude, that as it is found " three or four hundred leagues from land, it muſt deſcribe a track " of ſeven or eight hundred leagues before it can halt." Labat, *Nouveaux Voyages aux îles de l'Amerique*; *Paris*, 1722, *tom*. vi.

* " In the evening we ſaw ſeveral birds called Frigats; at mid-" night I heard others about the veſſel; and at five o'clock in the " morning we perceived the iſland of Aſcenſion." *Wallis.*

† " The dolphins and bonettoes purſued the ſhoals of flying fiſh, " as we have obſerved in the Atlantic Ocean; while ſeveral large " black birds with long wings and a forked tail, uſually called Fri-" gats, roſe very high in the air, and daſhing down with ſurpriz-" ing ſwiftneſs on the fiſh which they perceived ſwimming, never " failed to ſtrike their prey." *Cook.*

the water *, they ſnatch the fiſh, ſeizing it with the bill or talons, and often with both at once; according as it ſcuds on the ſurface, or ſprings into the air.

It is between the tropics only, or a little beyond them †, that we find the Frigat in the ſeas of both continents ‡. He maintains a ſort of empire over the birds of the torrid zone: he obliges many, ſuch as the boobies, to provide for him; and ſtriking them with his wing, or biting them with his hooked bill, he conſtrains them to diſgorge their prey, which he inſtantly catches §. The hoſtilities which he commits have

* "Though the Frigat riſes to a vaſt height in the air, and "often beyond the reach of our ſight, it notwithſtanding deſcries "clearly where the dolphins are in purſuit of the flying fiſh: it "then ſhoots down like lightning, not quite to the water, but when "it has come within ten or twelve fathoms, it makes a great bend, "and ſinks gradually till it raze the ſea, and catches the little fiſh "either while flying or while in the water, with its bill or its talons, "and often with both together." *Dutertre.*

† "In 30° 30′ ſouth latitude, we began to ſee Frigats." *Cook.*—"In 27° 4′ ſouth latitude, and 103° 56′ weſt longitude, about the "beginning of March, we met with great numbers of birds, ſuch as "Frigats, tropic birds, &c." *Idem.*

‡ At Ceylon; in the run between Madagaſcar and the Maldives; at the iſland of Aſcenſion; at Eaſter iſland; at the Marqueſas; at Otaheite, and in all the low iſlands of the ſouthern Archipelago; on the coaſt of Brazil, where it is called *caripira*; at Caracca; at the iſle of Aves, and in all the Antilles.

§ "Theſe birds, called Frigats, hunt the boobies; they make "them riſe above the rocks where they are perched, and purſue "them, ſtriking with the ends of their wings; the boobies, the "better to eſcape their enemies, diſgorge what fiſh they have "taken; and the Frigats, which want nothing elſe, catch the ſpoils "as

have led ſailors to beſtow on him the appellation of *Man-of-War bird* *. He has the audacity even to ſet man at defiance: " On land-" ing at the iſland of Aſcenſion," ſays the Viſcount de Querhoënt, " we were ſurrounded by " a cloud of Frigats. With a blow of my cane " I knocked down one, which attempted to " ſnatch a fiſh out of my hand: at the ſame " time many of them flew a few feet above the " kettle which was boiling aſhore, and endea-" voured to carry off the fleſh, though a part " of the ſhip's company attended it."

This temerity of the Frigat proceeds as much from the force of its arms, and the boldneſs of its flight, as from its voracity. It is fitted by nature for war: its talons are ſharp, its bill terminates in a very pointed hook, its legs are ſhort and ſtrong, its flight is rapid, its ſight acute: all theſe qualities ſeem to mark an analogy to the eagle, and to conſtitute it the tyrant of the air at ſea †. But its ſtructure is calculated for the watery element, and, though it ſeldom or never ſwims, its four toes are connected by a ſingle ſcalloped membrane. In this reſpect, it ap-

" as they are dropt, and before they reach the water." *Hiſtory of the Buccaneers.*—" According to Oviedo, the Frigats wage the ſame " war againſt the pelicans, when theſe repair to the Bay of Panama, " to fiſh for ſardines." *Ray.*

* Dampier.

† Hence, in the Linnæan ſyſtem, the Frigat is denominated *Pelecanus Aquilus*, or Eagle Pelican.

proaches

proaches the cormorants, the boobies, and the pelicans, which may be regarded as perfect palmipeds. The bill of the Frigat is peculiarly calculated for rapine, since it terminates in a sharp hooked tip, and yet differs essentially from that of the birds of prey, being very long, the upper mandible somewhat concave, and the hook, placed quite at the point, seems to form a detached piece, as in the bill of the boobies, which it resembles by its sutures and by the want of external nostrils.

The Frigat is not larger than a hen, but its wings extend eight, ten, and even fourteen feet. This prodigious expansion enables it to perform its distant excursions, and transports it into the midst of the ocean, where it is often the only object between the sky and the water that gratifies the longing eyes of the mariner *; but this excessive length of wings has also its inconvenience; and, like the booby, the Frigat can hardly rise after it has alighted, so that when surprized in that situation it may be felled to the ground †. A cliff or the summit of a tree,

* "We were accompanied with no bird in our route; a white "booby or a Frigat appeared now and then at a great distance "(between 15° and 20° south latitude)." *Cook.*

† "I went one of these last days to hunt Frigats on their islet at "the extremity of Guadaloupe; we were three or four persons, and "in less than two hours we took three or four hundred; we surprized the grown ones on the branches, or in their nest, and as they "had great difficulty in taking wing, we had time to stun them with "the

tree is required, and even then it cofts great effort to mount on wing *. We may fuppofe that all the palmated birds which perch have no object in view but to commence more eafily their flight; for that habit is not fuited to the ftructure of their feet, and it is only on elevated points that they can difplay their enormous wings and exert their pinions.

Hence the Frigats retire to fettle on the high cliffs or woody iflets, to breed undifturbed †. Dampier remarks, that they build their nefts on trees, in fequeftered fpots near the fea; they lay one or two eggs, which are white, with a carnation tinge, and having fmall dots of crimfon. The young ones are at firft covered with a light gray down; their feet are of the fame colour, and their bill is almoft white ‡: but this colour afterwards changes, and the bill grows

" the blows of fticks." *Dutertre.*—" They leave their eggs with diffi-
" culty, and fuffer themfelves to be knocked down with fticks: I
" have often been witnefs and actor of this butchery." *M. de la Borde.*

* Dutertre.

† " The fea rocks, and the little defert ifles, are the retreats of " thefe birds; and in fuch fequeftered fpots they neftle." *Hift. Nat. & Mor. des Antilles.*—" Thefe birds had very long poffeffed a little " ifle in the extremity of Guadeloupe, to which all the Frigats of the " neighbourhood came to repofe at night, and neftle in the feafon. " It was called the *iflet of Frigats,* and ftill bears that name, though " they have changed their retreat; for in the years 1643 and 1644, " many perfons hunted them fo clofely, that they were obliged to " forfake the iflet." *Dutertre.*

‡ Obfervation made by the Vifcount de Querhoënt at the ifland of Afcenfion.

red or black, and bluiſh in the middle; the ſame alteration takes place in the toes. The head is pretty large, and flat above; the eyes are large, black and brilliant, and encircled by a bluiſh ſkin *. Under the throat of the adult male, there is a large fleſhy membrane of bright red, more or leſs inflated or pendulous. No perſon has diſtinctly deſcribed theſe parts; but if they belonged excluſively to the male, they might bear ſome analogy to the caruncle of the turkey-cock, which ſwells and reddens, when the bird is ſtimulated by love or rage.

The Frigats are diſtinguiſhed afar at ſea, not only by the exceſſive length of their wings, but by the very forked ſhape of their tail †. The whole plumage is commonly black with a bluiſh gloſs, at leaſt that of the male ‡. Thoſe which are brown ‖, as the *little Frigat* figured by Edwards, ſeem to be females. Among the number of Frigats ſeen by the Viſcount de Querhoënt at the iſland of Aſcenſion, and which were all of the ſame ſize, ſome appeared entirely black, others of a deep black on the upper ſur-

* Feuillée.

† The Portugueſe call the Frigat *Rabo Forcado*, on account of its very forked tail.

‡ Ray.

‖ "The feathers of the back and of the wings are black, thick, "and ſtrong; thoſe which cover the ſtomach and thighs are more "delicate, and not ſo black. There are ſome which have all the feathers "brown on the back and on the wings, and gray under the belly; it "is ſaid that the latter are females, or perhaps young ones." *Labat*.

face

face of the body, with the head and belly, white. The feathers on their neck are fo long, that the inhabitants of the South-Sea Iflands work them into bonnets *. They fet great value on the fat, or rather oil, extracted from thefe birds, on account of its fuppofed virtue in curing rheumatifms and torpors †.

This bird has, like the booby, the fpace round the eye naked; and alfo the nail of the mid-toe indented within. Thus the Frigats, though born the perfecutors of the boobies, are related to them by confanguinity: fad example in nature, of animals, which, like ourfelves, find often the moft inveterate foes among their kindred!

* Moft of the men at Eafter Ifland wore on their head a fillet of grafs, decorated with the long black feathers found on the neck of Frigats; others had enormous bonnets of the feathers of the brown gull. *Cook.*

† The oil or fat of thefe birds is a fovereign remedy in fciatic complaints, and for all others that originate from cold; it is efteemed a precious medicine in the Weft Indies. *Dutertre.*—The Buccaneers extract this oil, which they call *the oil of Frigats*, by boiling thefe birds in great cauldrons; it fells very dear in our iflands. *M. de la Borde.*—The fat fhould be warmed, and rubbed well upon the part affected, in order to open the pores, and fpirit of wine fhould be mixed with it when the application is made: many people have received a complete cure, or at leaft great relief, from the remedy which I here mention on the credit of another, not having myfelf had an opportunity of putting it in practice. *Labat.*

[A] Specific character of the Frigat, *Pelecanus Aquilus*: "Its "tail is forked, its body black, its bill red, its orbits black."

The GULLS and the MEWS.

LES GOELANDS *et* LES MOUETTES. *Buff.* *

THESE two names, ſometimes conjoined, ſometimes ſeparated, have hitherto ſerved rather to confound than to diſcriminate the ſpecies comprehended in one of the moſt numerous families of the aquatic birds. Many naturaliſts have termed thoſe *Gulls*, which others call *Mews*, and ſome have conſidered theſe two appellations as ſynonymous. But of all expreſſions in language, ſome traces muſt remain of their origin, or ſome marks of their differences: and I conceive that *Gull* and *Mew* correſpond to the Latin words *larus* and *gavia*. I am perſuaded alſo, that the Gulls properly include the larger, and the Mews the ſmaller ſpecies. Nay, we may diſcover veſtiges of the ſame diviſion among the Greeks; for the word κεπφος, which occurs in Ariſtotle, Aratus, and other authors, ſeems to denote a particular kind of Gulls. Suidas and the ſcholiaſt of Ariſtophanes render κεπφος by

* In Greek Λαρος and Κεπφος: in Euſtathius Κηξ; and Lycophron gives the old ones the name Καυηξ, which ſeems to imitate their cry: in Latin *Larus* and *Gavia;* in German *Mew;* in Greenlandic *Akpa* or *Naviat.*

larus;

larus; and Gaza might have given the ſame verſion in his edition of Ariſtotle *, had he not followed the conjecture of Pierius, that Virgil, in a paſſage of his Georgics, tranſlated literally the verſes of Aratus, and ſubſtituted *fulica* for the Greek term. But if the *fulica* of the ancients be the ſame with our coot, the property aſcribed to it by the Roman poet, of playing on the beach previous to a ſtorm †, would be without foundation ‡, ſince that bird does not live on the ſea. The character which Ariſtotle gives of his κεπφος, that it ſwallows the ſalt ſpume, and is caught by that bait, can apply only to a voracious bird, ſuch as the Gull or the Mew. Aldrovandus accordingly concludes, after comparing theſe circumſtances, that the λαρος in Ariſtotle is *generic*, and that the κεπφος is ſpecific, or rather belongs to ſome ſubordinate ſpecies of the ſame genus. But a remark which Turner has made on the voice of theſe birds, ſeems to throw us again into uncertainty: he conceives that the word κεπφος is imitative of that of the Mew, which uſually concludes its ſhrill cries by a low, ſhort accent, or a ſort of ſneezing, *keph*; while

* Lib. ix. 135.

† ——— *cumque marinæ*
In ſicco ludunt fulicæ —— Virg. *Georg.* i. 362.

‡ The epithet which Cicero gives to the coot, in tranſlating the ſame idea of Aratus, applies not to that bird, but agrees well with the gull:

Cana fulix itidem fugiens è gurgite ponti,
Nuntiat horribiles clamans inſtare procellas.

 the

the gull terminates its ſcream by a deeper tone, *cob*.

The Greek name κεπφος will correſpond then, in our diviſion, to the Latin *gavia*, and will properly denote the inferior ſpecies, or *the Mews*; while the appellation λαρος, or *larus*, will ſignify the larger ſpecies, or *the Gulls*. And to fix a term of compariſon in this ſcale of magnitude, we ſhall reckon all thoſe birds *Gulls*, which exceed a duck in bulk, and meaſure eighteen or twenty inches from the point of the bill to the end of the tail; and all under that dimenſion we ſhall denominate *Mews*. It would thence follow, that the ſixth ſpecies, which Briſſon calls the *firſt Mew*, ought to be ranged with the Gulls, and that many of the Gulls in the Linnæan ſyſtem muſt be claſſed with the Mews: but before we deſcend into the detail, we ſhall exhibit the general characters and habits common to the whole genus.

All the Gulls and Mews are alike voracious and clamorous; they might be ſtyled the vultures of the ſea: they devour carrion of every kind which floats on the ſurface, or is caſt on ſhore. As cowardly as they are gluttonous, they attack only weak animals, and vent their fury on dead bodies. Their ignoble port, their importunate cries, their edged and hooked bill, preſent the hateful picture of birds ſanguinary and baſely cruel. They fight rancorouſly together on the ſcene of carnage; and even when they

are ſhut up, and their ferocious humour is ſoured by captivity, they wound each other without apparent motive, and the firſt from which blood is drawn falls a victim to the reſt; for their fury then riſes to a pitch, and they tear in pieces the wretch which they had wounded without cauſe"*. This exceſs of cruelty is ſcarce ſeen but in the large ſpecies; but all of them, when at liberty, continually watch an opportunity to ſteal the food or prey of their companions. Every thing is acceptable to their voracity †: fiſh, whether freſh or putrid; bloody fleſh, recent or tainted; ſhell-fiſh, and even bones; all digeſt in their ſtomach ‡. They ſwallow the bait and the hook; they dart with ſuch violence as to transfix themſelves on the point where the fiſherman places the herring or pilcher as a ſnare. Nor is this the only way to allure them; Oppian aſſerts, that if a board be painted with figures of fiſh, theſe birds will daſh againſt it.—But ought not

* *Obſervation made by M. Baillon, of Montreuil-ſur-mer.*

† "I have often given my Mews buzzards, ravens, new-born "kittens, rabbits, and other dead animals; they devoured them as "greedily as they would do fiſh: I have ſtill two which can eaſily "ſwallow ſtares and ſea-larks without plucking a feather; their "throat is a gulph which devours every thing." *Note communicated by M. Baillon.*

‡ "They diſgorge ſuch ſubſtances when they have plenty of "other food; but when they are pinched for want, the whole re-"mains in their ſtomach, and diſſolves by the heat. Extreme "voracity is not the only character in which theſe birds approach "the vultures and the other ravenous birds; the Mews ſuffer hun-"ger with equal patience: I ſaw one live nine days beſide me, "without taſting food." *Note of the ſame obſerver.*

these portraits to be as perfect as those of the grapes by Parrhasius?

Both the Gulls and the Mews have a long cutting bill, flat on the sides, with the point fortified and bent into a hook, and a protuberant corner at the lower mandible. These characters are more apparent and decided in the Gulls, but yet occur in all the species of Mews: by these they are distinguished also from the terns, which have neither the hook on the upper mandible, nor the protuberance on the lower; not to mention that the largest of the terns is inferior to the least of the Mews. The Mews have their tail not forked but entire: their leg, or rather their tarsus, is very high; and they would have the tallest legs of all the palmated birds, did not those of the flamingo, the avoset, and the long-shank still exceed them, whose structure is so misproportioned that they might be regarded as monstrous species. All the Gulls and Mews have three toes connected by an entire membrane, and the hind toe detached, but very small: their head is large, and its carriage ungraceful, being sunk almost between the shoulders, whether they walk or repose. They run swiftly on the beach, and fly still better above the waves: their long wings, which when closed exceed the tail, and the quantity of feathers with which their body is clothed, make them very light *.

* We have a proverb, *You are as light as a Mew.* Martens.

They

They have alſo a very thick down *, which is of a bluiſh colour, eſpecially on the ſtomach. They are hatched with that down, but the other feathers are late in growing; and they acquire not completely their colours, to wit, the fine white of the body, and the black or bluiſh gray on the mantle, till after ſeveral moultings, and in their third year. Oppian ſeems to have known this progreſs of their colours; for he ſays that theſe birds, as they grow old, become blue.

They keep in flocks on the ſea-ſhores; ſome running, ſome flying, and others alighting; the beach and the downs ſeem quickened by their numbers and their confuſed motions, and reſound inceſſantly with their noiſy cries. In general, no birds are more common on our coaſts, and they are found an hundred leagues at ſea. They frequent the iſlands and maritime countries of every climate. Navigators meet with them in all parts of the globe †. The larger ſpecies ſeem attached

* Aldrovandus ſays, that in Holland the down of the Mew is much uſed; but it would be hard to believe what he adds, that this down heaves up at full moon, by a ſympathetic concord with the ſwelling of the tide.

† The Gulls are as common in Japan as in Europe. *Kæmpfer.*—There are different kinds of them at the Cape of Good Hope, whoſe cry is like that of the European Gulls. *The Viſcount de Querhoënt.*—As long as we were on this bank, which extends as far as Cape Needles (off Madagaſcar) we ſaw Gulls. *Cook*:—he alſo ſaw Gulls at Cape Froward, in the Straits of Magellan; at New Holland; at New Zealand; near Statenland; in all the low iſlands of the ſouthern Archipelago; and many of the natives of Eaſter Iſland wore a wooden

attached to the ſhores of the northern ſeas *. It is reported that the Gulls of the Feroe iſlands are ſo ſtrong and voracious, that they often tear the lambs in pieces, and tranſport the fragments to their neſts †. In the icy ocean, they often gather in multitudes about the carcaſes of whales ‡; and on theſe maſſes of corruption they fear not infection. With ſuch repaſts they eaſily ſatiate their rapacity, and procure ample proviſion for the innate gluttony of their young. Theſe birds ſtrew their eggs and neſts by thouſands, even on the frozen lands of the two polar zones ‖; nor do

wooden hoop decked with the white feathers of Gulls, which waved in the air.—Clouds of Gulls produce in a great meaſure the dung which covers the iſland of Iquique, and which is carried, under the name of *guana*, into the valley of Arica. *Le Gentil.*—The Gull of Louiſiana is like that of France. *Dupratz.*—A number of Gulls and other birds came (at the Malouine iſlands) to hover on the water, and darted upon the fiſh with extreme ſwiftneſs; they led us to diſcover the proper ſeaſon for catching ſardines; if held a moment ſuſpended, they threw up that fiſh entire as it was juſt ſwallowed: theſe birds lay round the pools, on green plants like the water-lily, a great number of excellent wholeſome eggs. *Bougainville.*

* They abound on thoſe of Greenland to ſuch a degree, that the wretched inhabitants of that frozen region have a peculiar word to ſignify the hunting of this unpalatable game; *akpalliarpok.*

† Forſter.

‡ Hiſt. Gen. des Voyages, *tom.* xix. 48.

‖ On the 5th of June we had already ſeen lumps of ice, which ſurprized us ſo much, that we took them at firſt for ſwans . . . On the 11th, beyond the latitude of 75°, we landed on the iſland of *Baeren*, where we found numbers of Gulls eggs. *Barentz.*—We advanced as far as the iſland which Oliver Noorts had named *King's Iſland*, (near the ſtraits of Le Maire); ſome ſailors who went aſhore, found the

do they quit thofe regions in the gloom of winter, but feem attached to their native climates, and fcarcely affected by the change of temperature *. Ariftotle, who lived under a fky infinitely milder indeed, remarked that the Gulls and Mews never difappear, but remain the whole year in the places of their nativity.

The fame obfervation holds with refpect to France; for many fpecies of this bird are feen on our coafts, both in fummer and in winter: on the weftern fhores they are called *mauves*, or *miaules*, and on the fouthern *gabians*. Every where they are noted for their voracity and their difagreeable importunate cries. Sometimes they keep on the low fhores, fometimes they retire into the cavities of the rocks, expecting the waves to caft out their prey; often they attend the fifhers, to pick up the refufe and garbage: and this habit is doubtlefs the only ground of the affection towards man, which the ancients afcribed to thefe birds †. As their flefh is unfit for eating ‡, and their plumage of no

the ground almoft entirely covered with eggs of a particular kind of Gull; one might reach forty-five nefts with his hand, without changing place, and each contained three or four eggs, rather larger than thofe of lapwings. *Le Maire* and *Schouten*.

* The birds which pafs in greateft numbers towards Hudfon's Bay in fpring, to breed in the north, and which return to the fouthern countries in autumn, are the ftorks, the geefe, the ducks, the teals, the plovers . . . but the Gulls fpend the winter in the country, amidft ice and fnow. *Hift. Gen. des Voyages, tom.* xv. 267.

† Oppian.

‡ We could not have tafted it without vomiting, if we had not previoufly expofed them in air, hanging by the claws, with their heads

no value, they are neglected by the fowler, and ſuffered to approach without being fired upon*.

Curious to obſerve by ourſelves the habits of theſe birds, we ſought to procure ſome alive; and M. Baillon, who is ever ready to oblige us, ſent a lårge Gull with a black mantle of the firſt ſpecies, and a gray-mantled Gull of the ſecond ſpecies. We have kept them fifteen months in a garden, where we could obſerve them at all times. They ſhowed at firſt evident ſigns of their malevolent temper, purſuing each other continually, the large one never permitting the ſmall one to eat beſide him. They lived on ſoaked bread, the guts of game and of poultry, and other offals from the kitchen, none of which they ever refuſed. They alſo gathered worms and ſnails in the garden, and could eaſily ſeparate the ſhells. They often went to bathe in a

heads downwards for ſeveral days, that oil or whales fat might drop from their body, and that they might loſe their rank taſte. *Recueil des Voyages du Nord, tom.* ii. 89.

* The ſavages of the Antilles, however, eat theſe unſavoury birds.—“ There are,” ſays Father Dutertre, “ numbers of ſmall “ iſlands ſo full of them, that all the ſavages in paſſing load their “ canoes with them; it is droll to ſee how theſe people prepare “ them; they throw them entire, without gutting or plucking “ them, into the fire, and the burnt feathers form a cruſt within “ which the bird is cooked. When they purpoſe to eat, they re- “ move this cruſt, then half open the bird. I know not how they “ preſerve the carcaſe from corruption, for I have ſeen ſome that “ had been roaſted eight days before, which is the more ſurpriz- “ ing, as in twelve hours moſt kinds of fleſh in thoſe countries run “ into putrefaction.”

ſmall

ſmall baſon, and on coming out of the water they ſhook themſelves, clapped their wings, and then preened their plumage, like the geeſe and ducks. They roved at night, and were often ſeen walking out at ten or eleven o'clock. They do not, like moſt other birds, conceal their head under their wing when they ſleep; they only turn it behind, reſting the bill between the upper ſide of the wing and the back.

When a perſon tried to catch theſe birds, they bit and pecked with rancour: to maſter them without ſuffering injury, it was neceſſary to throw an handkerchief over their head. If one purſued them, they quickened their pace by ſpreading their wings. Uſually they walked ſlowly and ungracefully. Their ſloth was betrayed even in their rage; for when the largeſt purſued the other, he walked leiſurely, without ſeeming to care whether he ſhould overtake it; nor did the other ſhow any anxiety to eſcape, and when it reckoned itſelf to be at a ſufficient diſtance, it ſtopped; and it repeated this exertion as often as it was preſſed, ſo as to keep always beyond its enemy's reach, as if remoteneſs was ſufficient to deſtroy the antipathy.—Muſt not thus the weak ever retire for ſafety before the ſtrong? But unfortunately tyranny, in the hands of man, is an engine which extends as far as his thought!

Theſe birds appeared the whole winter to forget

forget the uſe of their wings. They diſcovered no inclination to fly away: they were indeed well fed, and their gluttonous appetite could not torment them. But in the ſpring they felt new appetites, and ſhowed other deſires; they endeavoured to riſe into the air, and would have eſcaped, had not ſeveral inches been clipt from their wings: they could therefore only ſpring by jerks, or whirl on their feet with their wings expanded. The paſſion of love, which wakens with the ſeaſon, ſeemed to ſuppreſs the inſtinct of antipathy, and deſtroy their mutual enmity: for they ſeemed to fondle each other, and though they did not conſort, being of different ſpecies, they ate, ſlept, and reſted together. But their plaintive cries and reſtleſs motions, ſufficiently declared, that the ſweeteſt ſentiment of nature was provoked, not ſatisfied.

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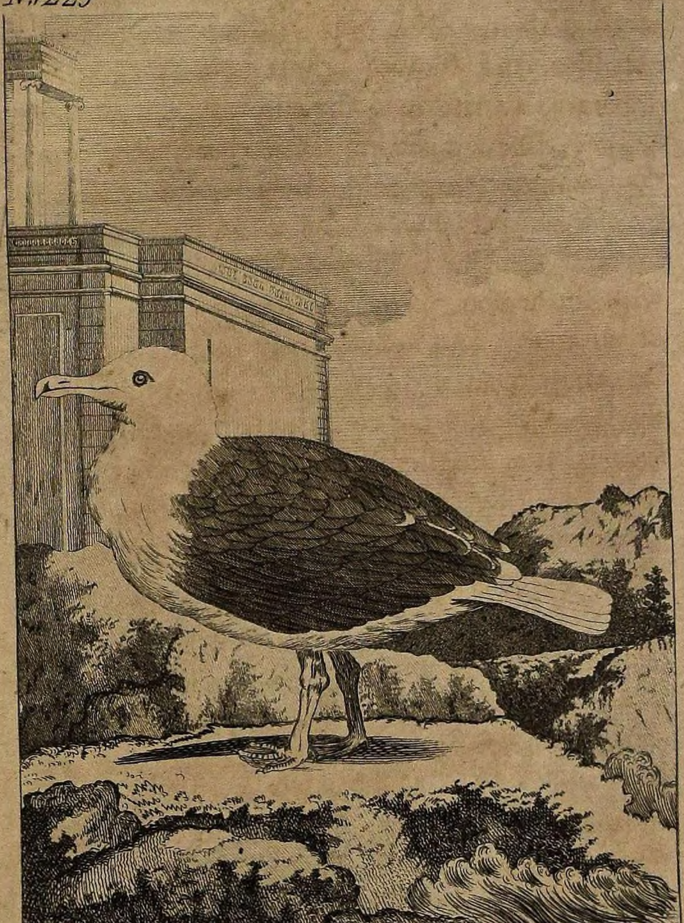

THE BLACKBACKED GULL.

The BLACK-MANTLED GULL *.

FIRST SPECIES.

Larus Marinus. Linn. and Gmel.
Larus Niger. Briſſ.
Larus Maximus Varius. Ray, Will. and Klein.
The Great Black and White Gull. Alb. and Penn.
The Black-backed Gull. Stillingfleet and Latham.

THIS is the largeſt of all the Gulls; it is two feet, and ſometimes two feet and an half, in length: a great mantle of black or ſlaty blackiſh covers its broad back; all the reſt of its plumage is white: its bill is firm and ſtrong, about three inches and a half long, yellowiſh, with a red ſpot on the projecting angle of the lower mandible: the eye-lid is orange-yellow; its feet, with their membrane, are fleſh-coloured, whitiſh and mealy.

The cry of this great Gull, which we kept a whole year, is a hoarſe ſound, *qua, qua, qua,* uttered in a raucous tone, and repeated very faſt: but this is ſeldom heard, and when the bird is taken it vents a doleful and very ſhrill ſcream.

* In Swediſh *Homaoka:* in Daniſh *Swart-bag, Blaa-maage:* in Norwegian *Hav-maaſe:* in Lapponic *Gairo:* in Icelandic *Swart-bakur:* in Greenlandic *Naviarlurſoak.*

[A] Specific character of the *Larus Marinus:* "It is white, "its back black." Beſides the northern parts of Europe, it is ſpread over the whole of North America, and in the Carolinas it is, on account of its ſober garb, called *the old wife.*

The GRAY-MANTLED GULL.

SECOND SPECIES.

Larus Glaucus. Gmel.
Larus Cinereus. Briſſ.
The Glaucous Gull. Penn. and Lath.

ASH-GRAY, ſpread on the back and ſhoulders, is the livery common to many ſpecies of mews, and which diſtinguiſhes this Gull: it is rather ſmaller than the preceding, and except its gray mantle, and the black furrows on the great quills of the wing, its plumage is entirely white. The eye is brilliant, and the iris yellow as in the hawk: the feet are a livid fleſh-colour: the bill, which in young ones is almoſt blackiſh, is pale yellow in adults: there is a red ſpot at the ſwell of the lower mandible, a character common to many ſpecies of gulls and mews. This bird flies from the preceding, and dares not diſpute with it about its prey. But it revenges itſelf on the mews, which are its inferiors in ſtrength: it pillages them, purſues them, and wages continual war with them. It frequents much, in the months of November and December, the coaſts of Normandy and Picardy; where it is called the *large miaulard* and

and *blue-mantle*, as the appellation *black-mantle* is beſtowed on the firſt ſpecies. This bird had ſeveral diſtinct cries which it uttered in the garden, where it lived with the preceding; and the firſt and moſt frequent of theſe ſeemed to be the two ſyllables *qui-ou*, which began like a whiſtle, ſhort and ſharp, and cloſed with a drawling tone, lower and ſofter. It was repeated only at intervals, and to produce it the bird was obliged to make an effort, and to extend its neck and incline its head. The ſecond cry, which was never vented but when purſued, or held cloſe, and which was therefore an expreſſion of fear or anger, may be imitated by the ſyllable *tia, tia*, whiſtled and repeated very faſt.—We may obſerve, by the way, that of all animals the cries of anger or fear are ſharper and ſhorter than the uſual accents.—About ſpring this bird aſſumes a very ſhrill, piercing voice, which might be denoted by the word *quieute* or *pieute*, ſometimes ſhort and rapidly pronounced, ſometimes produced on the final *eute*, with diſtinct intervals, like the ſighs of a perſon in diſtreſs. In either caſe, this cry ſeems to be the plaintive expreſſion inſpired by unſatisfied love.

[A] Specific character of the *Larus Glaucus*: "It is white; "its back and wings hoary; its wing-quills tipt with white; its "bill bright yellow, with the corner ſaffron."

The BROWN GULL.

THIRD SPECIES.

Larus Catarrhactes. Linn. and Gmel.
Larus Fuſcus. Briſſ.
Catarractes. Geſner, Sibbald, and Will.
Catarracta. Aldrov. Johnſt. and Charleton.
The Skua Gull. Penn. and Lath.

THIS Gull has its plumage of an uniform duſky brown over the whole body, except the belly, which is ſtriped acroſs with brown on a gray ground, and the great quills of the wing, which are black. It is ſomewhat ſmaller than the preceding, its length from the bill to the extremity of the tail being only a foot and eight inches, and an inch leſs to the nails, which are ſharp and ſtout. Ray obſerves, that the whole habit of the body of this bird beſpeaks rapine and carnage; and ſuch indeed is the baſe and cruel aſpect of all the ſanguinary tribes of gulls. It is to this ſpecies that naturaliſts have generally referred the *Catarractes* of Ariſtotle *, which, as the word imports †, deſcends with rapidity to ſeize its prey; which agrees well

* Hiſt. Animal. *lib.* ix. 12.

† From Κατα downwards, and Ῥεω to flow: hence alſo the word *cataract.*

with

with what Willughby reports of the great gull, that it dashes its head againſt the board on which the fiſhermen fix the bait. The *Catarractes* of Ariſtotle is undoubtedly a marine bird, ſince, according to the philoſopher, it drinks ſea-water *. The Brown Gull in fact occurs on the ocean, and the ſpecies appears to be ſettled in the high latitudes on both ſides of the equator: it is common in the Feroe iſlands, and on the coaſts of Scotland †. It ſeems even more diffuſed on the ſhores of the South Sea; and is probably the bird which our navigators denominate *the cobler (cordonnier ‡)* without hinting at the

* Nothing ſurely is more falſe than what Oppian ſays, that the Catarractes contents itſelf with dropping its eggs upon the ſea-weeds, and leaving them to be foſtered by the wind; unleſs it be what he adds, that about the time they are to hatch, the male and female take each in their claws an egg which is to produce a chick of their own ſex, and let them fall repeatedly on the ſea, till by this exerciſe the young birds burſt from their priſon.

† *Catarractes Noſter.* Sibbald.

‡ According to the notes which the Viſcount de Querhoënt has had the goodneſs to communicate, the cobler occurred in his route, not only near the Cape of Good Hope; but in higher or lower latitudes in the open ſea. This obſerver ſeems to diſtinguiſh a greater and a leſſer ſpecies of theſe birds, as will appear from the following extract:

" I believe that the inhabitants of the water live more friendly " and ſocially than thoſe of the land, though of very different ſpe-" cies and ſizes: they alight pretty near each other without any " miſtruſt; they hunt in company, and I never but once ſaw a " fight between a frigat and the leſſer kind of cobler; it laſted " pretty long in the air, and each defended itſelf with its wings " and its bill: the cobler, though incomparably weaker, eluded by " its agility the formidable blows of its antagoniſt, and did not " yield;

the reaſon of that appellation. The Engliſh found numbers of them at Port-Egmont, in the Falkland or Malouine iſlands, and have therefore ſtiled them *the Port Egmont hens* *. We cannot do better than tranſcribe the account given in the ſecond voyage of the celebrated Captain Cook.

" yield; it was vanquiſhed, when a petrel which chanced to be " near repaired to the ſcene, and, by paſſing and re-paſſing ſeve- " ral times between the combatants, effected their ſeparation; the " cobler through gratitude followed its deliverer, and came with it " round the ſhip."

* On the 24th of February, in latitude 44° 40′, on the coaſts of New Zealand, Mr. Banks, being in the boat, killed two Port-Egmont hens, exactly like thoſe which we had found in great numbers on the iſland of Faro, and which were the firſt that we ſaw on this coaſt, though we had met with ſeveral a few days before we diſcovered land. *Cook.*—In 50° 14′ latitude ſouth, and 95° 18′ longitude weſt, as many birds were flying about the ſhip, we took the opportunity of the calm to kill ſome of them; one was of the ſpecies which we have ſo often mentioned under the name of the Port Egmont hen, a ſort of gull nearly of the ſize of a raven, and of a deep brown plumage, except below each wing, where there were ſome white feathers; the reſt of the birds were albatroſſes and ſheer-waters. *Idem.*—On the iſlands near Statenland, we counted among the ſea-birds the *Port Egmont hens*. *Idem.*—The birds which we met with in Chriſtmas Sound, near Terra del Fuego, were geeſe, ducks, ſea-pies, ſhags, and that kind of gull ſo often mentioned in this Journal by the name of *Port Egmont hen*. *Idem.*—There were alſo (at New Georgia) albatroſſes, common gulls, and that kind which I call *Port Egmont hen*. *Idem.*—In the latitude of 54° 4′, we alſo ſaw a Port Egmont hen, and ſome weed. Navigators have generally looked upon all theſe to be certain ſigns of the vicinity of land; I cannot, however, ſupport this opinion. At this time we knew of no land, nor is it probable there is any nearer than New Holland or Van Diemen's land, from which we were diſtant two hundred and ſixty leagues. *Idem.*

"In the evening, being in the latitude of "64° 12′ ſouth, longitude 40° 15′ eaſt, a bird "called by us in my former voyage Port Eg-"mont hen, (on account of the great plenty of "them in Falkland Iſles) came hovering ſeveral "times over the ſhip, and then left us in the "direction of N. E. They are a ſhort thick "bird, about the ſize of a large crow, of a dark "brown or chocolate colour, with a whitiſh "ſtreak under each wing in the ſhape of a half-"moon. I have been told that theſe birds are "found in great plenty at the Feroe Iſlands "north of Scotland, and that they never go far "from land. Certain it is I never before ſaw them "above forty leagues off; but I do not remem-"ber ever ſeeing fewer than two together; "whereas here was but one, which, with the "iſlands of ice, may have come a good way "from land *."

* (To this account Mr. Forſter adds, that he recognized it to be the great northern gull, *Larus Catarractes*, common in the high latitudes in both hemiſpheres; that a few days after they ſaw another of the ſame kind, which roſe to a great height above their heads, which they regarded as a novelty, the birds of that climate keeping near the ſurface of the water.)

[A] Specific character of the *Larus Catarrhactes*: "It is "grayiſh; the quills of its wings and tail are white at the baſe; its "tail ſomewhat equal."

The VARIEGATED GULL; *or*, the GRISARD.

FOURTH SPECIES.

Larus Catarrhactes. Linn. and Gmel.
Larus Nævius. Gmel.
Larus Marinus, var. 2. Lath. Ind.
Larus Varius, ſive Skua. Briſſ.
Larus Major. Aldrovandus.
Larus Cinereus Major. Charleton.
Larus Griſeus Maximus. Klein.
The Wagel of the Corniſh. Ray.
The Sea Eagle. Sibbald's Hiſt. Fiſe.
The Skua Gull. Penn.
The Wagel Gull.* Lath. Syn.

THE plumage of this Gull is broken, and ſtreaked with brown gray on a white ground; the great quills of the wing are blackiſh; the bill black, thick and ſtout, and four inches long. This Gull is one of the largeſt, its alar extent being five feet, which meaſure was taken from an individual ſent alive from *Montreuil-ſur-Mer*, by M. Baillon. This bird lived a long time in a court-yard, where it killed its companion by fighting: it ſhowed the ſordid

* In Holland it is called *Mallemucke*; in the Feroe iſlands *Skua*; in Norway *Skue*, *Kav-orre*.

familiarity

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THE WAGEL GULL.

familiarity of a voracious animal, which hunger only attaches to the hand that feeds it. It ſwallowed flat fiſh almoſt as broad as its body; and with equal avidity it devoured raw fleſh, and even ſmall animals entire, ſuch as moles, rats, and birds *. A gull of this kind, which Anderſon received from Greenland, attacked ſmall animals, and fiercely defended itſelf with its bill againſt dogs and cats, and took pleaſure in biting their tails. On ſhowing it a white handkerchief, it was ſure to ſcream with a piercing tone, as if that recalled to its memory ſome foe which it dreaded at ſea.

All the Griſards are, according to the obſervations of M. Baillon, of a dirty and dark gray when young; but after the firſt moult the tint grows more dilute, the belly and the neck whiten firſt, and, in three moults, the plumage is entirely waved and freckled with gray and white, ſuch as we have deſcribed it. The white afterwards continues to gain ground, and the aged birds are entirely hoary. If the plumage, therefore, were the ſole foundation of diſtinction, we ſhould admit an unneceſſary number of ſpecies, ſince nature varies to ſuch degree the colours with the years.

In this, as in all the other gulls and mews, the

* Whence probably the fable of Oviedo (*Hiſt. Ind. Occid.* lib. xiv. 18.) has been applied to the Griſard, of a bird which has one foot webbed for ſwimming, and the other armed with talons for ſeizing its prey.

the female appears rather ſmaller than the male. Belon remarks, that it is not common in the Mediterranean, that it ſeldom occurs in our interior provinces *, but is numerous on our weſtern coaſts. It roams very far to ſea, ſince we are aſſured of its being found in Madagaſcar †. But the congenial region of this ſpecies ſeems to be the North. Theſe birds are the firſt which the veſſels meet in approaching Greenland ‡; and they conſtantly attend thoſe employed in the whale-fiſhery, following them even amidſt the ice. When a whale is killed, they alight in myriads on the floating carcaſe, and tear it on all ſides §: and though the fiſhers labour to drive them away, by ſtriking with poles and oars, they can hardly, without felling them, make them quit their hold ‖. This ſenſeleſs obſtinacy has occaſioned the Dutch name *Mallemucke* or *ſtupid beaſt* ¶. "Theſe fooliſh, ſordid

* M. Lottinger pretends that he has ſeen ſome of theſe birds on the great pools of Lorraine, in the fiſhing ſeaſon; and M. Hermann ſpeaks of a Griſard killed in the neighbourhood of Straſburg.

† *Note communicated by Dr. Mauduit.*

‡ Klein.

§ The herrings afford abundant ſubſiſtence to theſe legions of birds: Zorgdrager ſays, that he ſaw a quantity of herring bones about the neſts of the water-fowl on the rocks of Greenland. *Peche de la Baleine, partie* ii. 7.

‖ Memoirs of the Academy of Stockholm.

¶ From *mall*, which ſignifies *ſottiſh* or *ſtupid*; and *mocke*, which in old German means *beaſt* or *animal.*

"birds,

" birds, quarrel and fight," ſays Martens, " ſnatching from each other their morſels, " though the large carcaſes on which they feed " might abundantly ſatiate their voracity."

Belon perceived ſome analogy between the head of the Variegated Gull and that of the eagle: but, in its ſordid groveling habits, it much more reſembles the vultures. Its ſtout, hardy conſtitution renders it capable of bearing the moſt inclement weather; and mariners have remarked, that it cares little for ſtorms at ſea. It is well clothed with feathers, which ſeem to form the chief part of the bulk of its very lean body. But we are not certain if all theſe birds be conſtantly lean; for the one which we chanced to ſee, had a hook ſticking in its palate, and grown over with callous fleſh, which muſt have hindered it from ſwallowing eaſily.

According to Anderſon, it has an air-bag under its ſkin, like that of the pelican *. This naturaliſt obſerves, that his Greenland *Mallemucke* differs in ſome reſpects from that of Spitzbergen, deſcribed by Martens. We muſt notice that Martens himſelf ſeems to join, under this name *Mallemucke*, two birds, which at

* He adds ſome anatomical details: " Each lobe of the lungs " is formed like a ſeparate lung in ſhape of a purſe; the cryſtalline " of the eye is ſpherical like that of fiſhes; the heart has only one " chamber; the bill is perforated with four noſtrils, two diſcloſed, " and two concealed under the feathers at the root of the bill." *Hiſt. Nat. d'Iſlande & de Groënland.*

 other

other times he diſcriminates; and the ſecond, or that of Spitzbergen, from the ſtructure of its bill, *articulated with ſeveral pieces*, and having *tubular noſtrils*, and alſo *its croaking like frogs*, appears to be a petrel, rather than a gull.—To this ſpecies we may alſo refer a race or variety, larger than the common, and whoſe plumage is rather waved than ſpotted or ſtriped; it is deſcribed by Lidbeck, and occurs in the gulf of Bothnia; ſome individuals are eight or ten inches longer and broader than the common kinds of *Griſards*.

[A] Specific character of the *Larus Nævius*: "It is white; its "back cinereous; its tail-quills tipt with black."

The BROWN-GRAY-MANTLED GULL; *or*, the BURGOMASTER.

FIFTH SPECIES.

Larus Glaucus. Linn. and Gmel.
Larus Cinereus. Briſſ.
Burgermeiſter. Martens and Klein.
The Glaucous Gull. Penn. and Lath. *

THE Dutch who frequent the northern ſeas on the whale fiſhing, are conſtantly at-

* In Sweden it is called *Maos*: in Norway *Krykie*: in Lapland *Skierro*: and in Greenland *Tatarrok*.

tended

tended by clouds of mews and gulls. They have ſought to diſtinguiſh them by names ſignificative or imitative, *mallemucke*, *kirmew*, *ratſhet*, *kutgegef*. The preſent they have ſtiled the *Burgomaſter*, becauſe, by its ſtature and grave deportment, it would ſeem to preſide as a magiſtrate among theſe diſorderly and voracious tribes *. It is indeed a ſpecies of the firſt magnitude, and as large as the black-mantled gull. Its back is brown-gray, and alſo the quills of the wing, of which ſome are tipt with white, others with black, the reſt of the plumage white: the eye-lid is edged with red or yellow: the bill is yellow, with the lower angle very protuberant, and of a bright red; which Martens well expreſſes, by ſaying, that it ſeems to have a red cherry on the bill. It was probably from overſight that this traveller neglects to reckon the hind-toe, which is indeed very ſmall: for it is evidently the ſame with the *herring gull* † of the Engliſh. In the northern ſeas, theſe birds live on the carcaſes of large fiſh. "When a whale is dragged after a veſſel," ſays

* There are prodigious numbers of theſe aquatic birds in Greenland: we find there all the ſpecies deſcribed by Martens, in his Voyage to Spitzberg, and many others which he does not mention.

† *Larus Fuſcus.* Linn. and Gmel.
Larus Griſeus. } Briſſ.
Gavia Griſea. }
Larus Cinereus Maximus. Ray, Will. and Sloane.
Specific character: "It is white; its back brown."

Martens,

Martens, "they flock about it, and ſteal large "pieces of the blubber. They may then be "eaſily killed; but it is impoſſible to gain its "neſt, which it places on the ſummit and in "the clefts of the higheſt rocks. The *Burgo-"maſter*," he adds, "intimidates the *mallemucke*, "which, however ſtout it be, ſubmits to be "beaten and pecked, without attempting to re-"taliate. When the Burgomaſter flies, its "white tail ſpreads like a fan. Its cry reſem-"bles that of a raven: it purſues the young "*lumbs*, and often hovers about the ſea-horſes, "whoſe dung it ſeems to ſwallow."

According to Willughby, the eggs of this gull are whitiſh, ſprinkled with ſome blackiſh ſpots, and as large as hen's eggs. Father Feuillée mentions a bird on the coaſts of Chili and Peru, which, by its figure, its colours, and its voracity, reſembles this northern gull, but which is probably ſmaller; for that travelled naturaliſt ſays, that its eggs are only ſomewhat larger than thoſe of the partridge. He ſubjoins, that he found its ſtomach entirely filled with the feathers of certain ſmall birds of the coaſts of the South Sea, which the natives call *tocoquito*.

The GRAY and WHITE-MANTLED GULL.

SIXTH SPECIES.

Larus Fuscus. Linn. and Gmel.
Gavia Grisea. Briss.
The Herring Gull. Penn. and Lath.

IT is probable that this Gull, defcribed by Father Feuillée, and which is nearly as large as the gray-mantled Gull, is only a fhade or variety of that fpecies, or of fome of the preceding, at a certain age. Its figure and ftructure feem to lead to that inference. Its mantle, fays the Jefuit, is gray mixed with white, and fo is the upper furface of the neck, of which the fore fide is light gray, and all its *livery:* the quills of the tail are dull red lead colour, and the top of the head is gray. He adds, as a fingular property, that the inner toe has only two joints, the middle one three, and the outer four, which is therefore the longeft; but this ftructure, the moft favourable for fwimming, fince the broadeft part of the fole has thus the greateft compafs of motion, occurs in a great number of aquatic birds, and even among the waders. We have obferved particularly in the jacana, the fultana, and the water hen, that the outer toe contained four *phalanges*, the middle one three, and the inner only two.

The WHITE MEW.

FIRST SPECIES.

Larus Eburneus. Gmelin and Phipps.
The Ivory Gull. Penn. and Lath.

FROM what we have ſaid of the wagels, which whiten with age, we might ſuppoſe that this is only an old one; but it is much ſmaller than that gull; its bill is neither ſo large, nor ſo ſtrong, and its plumage is pure white, without any tinge or ſpot of gray. It exceeds not fifteen inches from the end of the bill to that of the tail. It is deſcribed in Captain Phipps's * voyage to the north: he obſerves very properly, that this ſpecies has not been delineated in the Linnæan ſyſtem, and that the bird called *raths-herr*, or ſenator, by Martens, perfectly reſembles it, except in the feet, to which Martens attributes only three toes. But if we ſuppoſe the fourth toe, which is very mi-

* "The whole bird is ſnowy and ſpotleſs; its bill lead-coloured; "its orbits ſaffron, aſh-leaden; its nails black; its hind-toe jointed "and nailed; its wings longer than its tail; its tail equal, and longer "than its feet. The whole length of the bird, from the tip of the "bill to the end of the tail, is ſixteen inches; the diſtance between "the tips of the ſpread wings, thirty-ſeven inches; the bill two "inches."

nute,

nute, to have eſcaped the obſervation of that navigator, it would exactly correſpond to his *rathsherr*. Its whiteneſs ſurpaſſes that of ſnow; and the ſtately pace of the bird on the ice has procured it the appellation of *raths-herr*, or ſenator. Its voice is low and ſtrong; and whereas the little mews or *kirmews* ſeem to call *kir* or *kair*, the Senator ſounds *kar*. It is uſually ſolitary, unleſs ſome prey collects a certain number of them. Martens ſaw them alight on the carcaſes of ſea-horſes, and devour their dung.

[A] Specific character of the *Larus Eburneus*: " It is all white, " its orbits ſaffron, its bill and feet lead-coloured."

The SPOTTED MEW; *or*, the KUTGEGHEF.

SECOND SPECIES.

Larus Riga. } Gmel.
Larus Tridactylus. }
Gavia Cinerea Nævia. } Briſſ.
Gavia Cinerea. }
Larus Cinereus Piſcator. Klein.
The Tarrock of the Corniſh.
The Kittiwake of the Scotch.

" WHILE we were cutting up the whale-" blubber," ſays Martens, " a number " of theſe birds came ſcreaming about our ſhip, " and

"and ſeemed to pronounce *kutgeghef*." That ſound reſembles, indeed, the ſort of ſneezing, *keph*, *keph*, which ſeveral captive gulls utter, and from which we conjectured the Greek name κεπφος was derived. This bird exceeds not in bulk the white mew; it is only fifteen inches long: the plumage conſiſts of a fine white ground on the fore ſide of the body, and gray on the mantle, marked with ſome ſtreaks of the ſame gray that form a kind of half-collar on the upper ſide of the neck; it is diſtinguiſhed alſo by ſpots of white and black mixed on the coverts of the wing, with varieties, however, which we ſhall mention. The hind toe, which is very ſmall in all the mews, is ſcarce perceptible in this one, as Belon and Ray obſerve. And hence Martens ſays, that it has only three toes: he adds, that it always flies rapidly againſt the wind, however violent this blows; but that it is perpetually purſued and harraſſed by the bird *ſtrundt-jager* *, and conſtrained to void its excrements, which the latter greedily ſwallows. In a ſubſequent article †, we ſhall find that this depraved taſte has been erroneouſly imputed to the *ſtrundt-jager*.

This Spotted Mew occurs not only in the ſeas of the north, it alſo inhabits the coaſts of England ‡ and Scotland ‖. Belon, who met with it

* i. e. *Dung-hunter*.

† See the article of the *Dung-bird*.

‡ Ray. ‖ Sibbald.

in

in Greece, ſays, that he recognized it merely from the name *laros*, which it ſtill bears in that country: and Martens, after having obſerved it at Spitzbergen, found it again in the Spaniſh ſeas, ſomewhat different,, indeed, yet ſtill diſtinguiſhable; whence he very judiciouſly infers, that animals of the ſame ſpecies in diſtant countries muſt ever receive impreſſions from the climates. So great is the difference in the preſent caſe, that this ſpecies has been ſplit into two: the *cinereous mew* of Briſſon, and his *cinereous ſpotted mew*, are unqueſtionably the ſame, as a compariſon of the figures will evince. And what completely eſtabliſhes our poſition, is a ſeries of ſubjects, which exhibits a gradual progreſs of the black and white of the wing, from the mottled colours to the ſimple gray. The gray half-collar on the top of the neck is common to all the individuals of this ſpecies.

Flocks of theſe Mews appeared ſuddenly near Semur in Auxois, in the month of February 1775. They were very eaſily killed, and were found dead or half-ſtarved with hunger in the meadows, the fields, and the brinks of rivulets. On opening them, their ſtomach was found to contain ſome fragments of fiſhes, and their inteſtines a blackiſh jelly. Theſe birds were not known in the country; their appearance laſted only a fortnight; they were brought by a ſtrong ſouth wind, which blew all that time *.

* *Obſervation communicated by M. de Montbeillard.*

[A] Specific

[A] Specific character of the Kittiwake, *Larus Riga*: "It is "white, its back hoary, its tail-quills entirely white, its feet have "three toes."—Specific character of the Tarrock, *Larus Tridactylus*: "It is whitiſh, its back ſomewhat hoary, its tail-quills, except "the outermoſt, tipt with black; its feet have three toes." But Mr. Latham very properly claſſes them under the ſame ſpecies, the Tarrock being only the young bird.

The GREAT CINEREOUS MEW; *or*, the BLUE-FOOTED MEW.

THIRD SPECIES.

Larus Canus. Linn. and Gmel.
Gavia Cinerea. Briſſ.
Galedor, Crocala, Galetra. Aldrov.
Gabiano Minore. Zinn.
Larus Roſtro Nigro. Klein.
Larus Cinereus Minor. Will. Ray, and Sibb.
The Common Sea-Mall, or *Mew.* Will. and Ray.
The White Web-footed Gull. Albin.
The Common Gull. Penn. and Lath.

THE bluiſh colour of the feet and bill, conſtant in this ſpecies, ought to diſtinguiſh it from the others, which have the feet generally of fleſh-colour, more or leſs vermilion or livid. It is ſixteen or ſeventeen inches long, from the point of the bill to the end of the tail; its mantle is light cinereous; ſeveral of the wing-quills are furrowed with black; all the reſt of its plumage is ſnowy white.

Willughby

Willughby reckons this the moſt common ſpecies in England. It is called the *grand emiaulle* * on the coaſts of Picardy. M. Baillon has made the following obſervations on the different ſhades of colours that its plumage aſſumes in the ſucceſſive moultings: in the firſt year the quills of the wings are blackiſh; and not till the ſecond moulting do they acquire the diſtinct black and the white ſpots with which they are variegated: no young Mew has a white tail, the end is always black or gray; at the ſame age the head and the upper ſide of the neck are marked with ſome ſpots, which are by degrees obliterated, and give place to pure white: the bill and the feet gain not their full colour till two years old.

To theſe general obſervations, very important as they are to ſtop the unneceſſary multiplication of ſpecies from individual varieties, M. Baillon adds ſome on the particular nature of the Blue-footed Mew. It is more difficult to tame than the reſt, yet it ſeems not ſo wild in the ſtate of liberty: it fights leſs, and is not ſo voracious as moſt of the others; but it is not ſo ſprightly as the little cinereous Mew. When kept in a garden, it ſought earth-worms: if offered ſmall birds, it would not touch them till they were half-torn; which ſhews that it is not

* i. e, *The Great Mew,* from *miauler,* to ſquall like a cat; whence the Engliſh verb *to mewl,* and the names of theſe birds *Mall* and *Mew.*—*T.*

ſo carnivorous as the gulls. And as it is not ſo lively or cheerful as the little Mews, which remain to be deſcribed, it ſeems, by its ſize and its inſtincts, to hold the middle rank between them both.

[A] Specific character of the Common Sea-Mew, *Larus Canus*: "It is white, its back hoary." It is the moſt numerous of all the gulls, at leaſt in Great Britain. It breeds on the ledges of the cliffs that overhang the ſea.

The LITTLE CINEREOUS MEW.

FOURTH SPECIES.

Larus Cinerarius. Linn. and Gmel.
Gavia Cinerea Minor. Briſſ.
Larus Cinereus Primus. Johnſt.
The Red-legged Gull. Lath.

ITS inferior ſize, and the different colour of its legs, diſtinguiſh this Mew from the preceding, which it reſembles exactly in its colours. It has the ſame light cinereous and bluiſh on its mantle, the ſame black ſcallops ſpotted with white on the great quills of the wing, and laſtly, the ſame ſnowy white over all the plumage, except a black ſpeckle, which appears

pears conſtantly on the ſides of the neck behind the eye. The livery of the young ones conſiſts of brown ſpots on the coverts of the wing. In the aged, the feathers of the belly have a ſlight tint of roſe colour; and it is not till the ſecond or third year, that the legs and the bill degenerate from a fine red into a livid complexion.

This and the laughing Mew are the two leaſt of the whole family. They exceed not the bulk of a large pigeon, and their body is much thinner: they are thirteen or fourteen inches long. They are very handſome, clean, and active; leſs vicious than the large ſpecies, yet more lively. They eat many inſects, and during ſummer they make a thouſand evolutions in the air after beetles and flies. They take ſuch quantities of thoſe, that their ſtomachs are filled up to their bill. They follow the riſe of the tide * in the rivers, and ſpread ſome leagues over the land, groping in the marſhes for worms and leeches, and return in the evening to the ſea. M. Baillon, who made the obſervations, adds, that they might eaſily be made to inhabit gardens, where they would feed on inſects, ſmall lizards, and other reptiles. Yet they may be kept on ſoaked bread, but muſt always have much water, becauſe they every inſtant waſh their bill and feet. They are very clamorous,

* Sometimes they advance very far: M. Baillon ſaw one on the Loire, above fifty leagues from its mouth.

eſpecially when young; and on the coaſt of Picardy they are called the *petites miaulles*, (the little Mews). It ſeems that the name *tattaret* has alſo been applied on account of their cry *. They appear to be the ſame with the gray gulls mentioned in the Portugueſe relations of India, under the denomination *garaios*, and which navigators meet with in numbers on the paſſage from Madagaſcar to the Maldives †. To ſome ſimilar ſpecies alſo we muſt refer the bird called *tambilagan* in Luçon, and which is a gray Mew of ſmall ſize, according to the ſhort deſcription given by Camel in his account of the Philippine birds, inſerted in the Philoſophical Tranſactions.

* "The *tattaret* is a little common gull; it derives its name from "its cry. It is the ſmalleſt, but the handſomeſt of the birds of this "claſs: it would be entirely white, were not its back azure. The "*tattarets* build in flocks, on the ſummits of the moſt craggy rocks; "and if a perſon approaches them, they begin to fly with ſhrill "cries, as if they would frighten people away with the hideous "noiſe." *Hiſt. Gen. des Voyages, tom.* xix. *p.* 47.

† On this track there are always ſeen numbers of birds, ſuch as gray gulls, which the Portugueſe call *garaios* . . . Theſe gulls come to alight on the veſſels, and ſuffer themſelves to be caught by the hand, without fearing the ſight of men, as having never experienced them: they had the ſame fate with the flying-fiſh, which they hunt on theſe ſeas, and which, being purſued at once by the birds and the fiſhes, often throw themſelves on board the veſſels. *Voyages qui ont ſervi a l'Etabliſſement de la Compagnie des Indes Orientales; Amſterdam,* 1702, *tom.* i. *p.* 277.

[A] Specific character of the *Larus Cinerarius*: "It is white, "its back hoary, with a brown ſpot behind the eyes."

The LAUGHING MEW.

FIFTH SPECIES.

Larus Ridibundus. } Linn. and Gmel.
Larus Atricilla. }
Gavia Ridibunda Phœnicopos. } Briff.
Gavia Ridibunda. }
Cepphus Turneri. Gefn.
Larus Cinereus. Ray, Will. and Scop.
The Pewit, or *Black Cap, Sea Crow,* or *Mire Crow.* Will.
The Pewit. Plott's Staffordfhire.
The Brown-headed Gull. Albin.
Baltner's Great Afh-coloured Sea Mew. Will.
The Pewit Gull. Penn.
The Black-headed Gull, Lath. *
The Laughing Gull. Catefby, Penn. and Lath.

THE cry of this little Mew bears fome refemblance to a hoarfe laugh; and hence its epithet. It is fomewhat larger than a pigeon; but, like all the mews, its body appears much more bulky than in reality. The quantity of fine feathers with which it is clothed, makes it very light; hence it flies almoft continually over the water; and during its fhort intervals on land, it is extremely buftling and noify, particularly in the breeding feafon, when thefe birds are moft collected †. It lays fix olive

* In German *Groffer See-Swalle* (greater fea-fwallow) and *Grauer Fifcher* (gray fifher): in Polifh *Rybitw Popielafly Wiekfy*: in Mexican *Pipixcan.*

† Ray.

eggs

eggs ſpotted with black; the young ones are good food, and, according to the Britiſh Zoology, they are taken in great numbers in the counties of Eſſex and Stafford.

Some of theſe Laughing Mews ſettle on the rivers and even the pools of inland countries *; and they ſeem to frequent the ſeas of both continents. Cateſby found them at the Bahama Iſlands: Fernandez deſcribes them under the Mexican name *pipixcan:* and, like all the other mews, they abound moſt in the northern countries. Martens, who obſerved them in Spitzbergen, and calls them *kirmews*, ſays, that they lay on whitiſh moſs, in which the eggs can hardly be diſtinguiſhed, being alſo dirty white, or greeniſh dotted with black: they are as large as thoſe of pigeons, but very ſharp at the end; the yolk is red, and the albugineous liquor is bluiſh. Martens ſays, that he ate of them, and found them very good, taſting like the eggs of lapwings. The parents dart boldly on the perſon who dares to rob their neſt, and with loud cries they endeavour to drive him off by ſtriking with their bills. The firſt ſyllable of their name *kirmew*, is expreſſive of their notes, according to the ſame traveller; who remarks, however, that their voice differs in the various regions which they inhabit, the polar tracts, the

* Kramer and Schwenckfeld. Theſe birds are ſeen on the Thames, near Graveſend, according to Albin.

coaſts

coafts of Scotland, thofe of Ireland, and the German Ocean. He afferts that, in general, a difference may be perceived in the cries of animals of the fame fpecies, refulting from the influence of climate; and this diverfity may indeed obtain, efpecially in birds, for the tones of animals are the expreffions of their moft ufual fenfations; and the feathered race are delicately fenfible to the variations of the atmofphere, and to the impreffions of temperature.

Martens obferves likewife, that the Mews of Spitzbergen have finer and more hairy feathers than thofe of our feas. This difference, too, arifes from the climate. Another, which feems to be derived from the age of the individual, confifts in the colour of the bill and the feet: in fome thefe are red, in others black. But what proves that this difference does not conftitute two diftinct fpecies is, that the intermediate fhade occurs in feveral fubjects; fome having the bill red, and the legs only reddifh, and others having the bill red at the tip only, and the reft black. Thus we admit but one fpecies of Laughing Mew; the difference which led Briffon to make a fubdivifion, lying entirely in the colour of the bill and of the legs. In the female, the front and throat are marked with white, whereas the whole head of the male is covered with a black cap: the great quills of the wing are alfo partly this colour: the mantle is bluifh cinereous, and the reft of the body white.

[A] Specific character of the Black-headed Gull, *Larus Ridibundus*: "It is whitiſh, its head blackiſh, its bill and feet red."—Specific character of the Laughing Gull, *Larus Atricilla*: "It is "ſomewhat hoary, its head blackiſh, its bill red, its feet black."

We ſhall tranſcribe Dr. Plott's account of the manner of catching the Pewits laſt century in Staffordſhire. After relating ſome marvellous ſtories reſpecting their attachment to the lord of the manor, he thus proceeds: "Being of the migratory kind, their firſt ap-"pearance is not till the latter end of February, and then in number "ſcarce above ſix, which come as harbingers to the reſt, to ſee whe-"ther the hafts or iſlands in the pools (upon which they build "their neſts) be prepared for them; but theſe never ſo much as "lighten, but fly over the pool, ſcarce ſtaying an hour: about "the 6th of March following, there comes a pretty conſiderable "flight of an hundred or more, and then they alight on the hafts, "and ſtay all day, but are gone again at night. About our Lady-"day, or ſooner in a forward ſpring, they come to ſtay for good, "otherwiſe not till the beginning of April, when they build their "neſts, which they make not of ſticks, but heath and ruſhes, "making them but ſhallow, and laying generally but four eggs, "three and five more rarely, which are about the bigneſs of a ſmall "hen egg. The hafts or iſlands are prepared for them between Mi-"chaelmas and Chriſtmas, by cutting down the reeds and ruſhes, "and putting them aſide in the nooks and corners of the hafts, and "in the valleys, to make them level; for ſhould they be permitted "to rot on the iſlands, the pewits would not endure them.

"After three weeks ſitting the young ones are hatched, and about "a month after they are almoſt ready to fly, which uſually happens "on the 3d of June, when the proprietor of the pool orders them to "be driven and catched, the gentry coming from all parts to ſee the "ſport: the manner is thus—They pitch a rabbet-net on the bank-"ſide, in the moſt convenient place over-againſt the hafts, the net "in the middle being about ten yards from the ſide, but cloſe at "the ends in the manner of a bow; then ſix or ſeven men wade into "the pool, beyond the pewits, over-againſt the net, with long ſtaves, "and drive them from the hafts, whence they all ſwim to the bank-"ſide, and landing, run like lapwings into the net, where people are "ſtanding ready to take them up, and put them into two pens made "within the bow of the net, which are built round, about three "yards diameter, and a yard high, or ſomewhat better, with ſmall "ſtakes driven into the ground in a circle, and interwoven with "broom and other raddles."—(This deſcription is illuſtrated by an engraving).

"In

" In which manner there have been taken in one morning fifty " dozens at a driving, which, at five ſhillings a dozen (the ancient " price of them) comes to £. 12. 10*s*.: but at ſeveral drifts that have " been anciently made in the ſame morning, there have been as " many taken as have ſold for £. 30; ſo that ſome years the profit of " them has amounted to £. 50 or £. 60, beſide what the generous " proprietor uſually preſents his relations and the nobility and gen- " try of the county withal, which he conſtantly does in a plentiful " manner, ſending them to their houſes in crates alive; ſo that feed- " ing them with livers and other entrails of beaſts, they may kill them " at what diſtance of time they pleaſe, according as occaſions pre- " ſent themſelves, they being accounted a good diſh at the moſt plen- " tiful tables.

" But they commonly appoint three days of driving them, within " fourteen days, or thereabouts, of the 2d or 3d of June; which, while " they are doing, ſome have obſerved a certain old one that ſeems to " be ſomewhat more concerned than the reſt, being clamorous, and " ſtriking down upon the heads of the men; which has given ground " of ſuſpicion that they have ſome government among them, and that " this is their prince that is ſo much concerned for its ſubjects. And " it is further obſerved, that when there is great plenty of them, the " Lent-corn of the country is much the better, and ſo the cow-paſ- " tures too, by reaſon they pick up all the worms and the fern-flies, " which, though bred in the fern, yet nip and feed on the young corn " and graſs, and hinder their growth." (The pools of Staffordſhire, which the pewits frequented, were Pewit Pool, in the pariſh of Norbury, and Sebben Pool, in the pariſh of High Offley). *Plott's Natural Hiſtory of Staffordſhire, pp.* 232 and 233.

The WINTER-MEW.

SIXTH SPECIES.

Larus Hybernus. Gmel.
Larus Canus, var. Lath. Ind.
Gabia Hyberna. Briſſ.
Larus Fuſcus, ſeu Hybernus. Ray, &c.
Guaca-guacu. Marcgrave.
In Cambridge-ſhire, Coddy-Moddy. Will.

WE ſuſpect that this bird is no other than our ſpotted mew *(kittiwake)* which viſits the inland parts of England during winter. We make this conjecture, becauſe its bulk is the ſame, and its plumage ſimilar, only brown where the other is gray: and it is well known that theſe birds when young have a darker caſt, not to mention how eaſily the ſhades may be confounded in a deſcription or drawing. If that of the Britiſh Zoology had been better, we could have ſpoken with more confidence. However, this Mew lives in winter on earth-worms, and when its ſtomach is overloaded, it diſgorges them half-digeſted; which is the origin of the *ſtar-ſhot* or *ſtar-gelly*.

*   *   *   *   *

[A] Specific character of the Winter-Mew, *Larus Hybernus:* "It is white; its top, the back of its head, and the fides of its neck, "fpotted; its back cinereous; the firft of its wing-quills black; its "tail marked with a black bar near the tip."—There is a paffage in Morton's Hiftory of Northamptonfhire, which, as it throws light on the œconomy of the Winter-Mew, and indeed on the nature of birds in general, deferves a place in this work.

"I fhall here," fays the intelligent author, "fet down my remarks "upon that *gelatinous* body called *ftar-gelly*, *ftar-fhot*, or *ftar-fall'n*; "fo named becaufe vulgarly believed to fall from a ftar, or to be the "recrement of the meteor which is called the falling or fhooting ftar, "or rather the meteor itfelf fhot down to the earth. It is generally a "clear, almoft fky-coloured, tremulous, vifcid, or tenacious gelly; but "in water glib and flippery. To the hand it is as cold as we gene-"rally fay a frog is; and is apt to ftrike a chillnefs into it. 'Tis "found in lumps or maffes of a certain fize. The largeft I have feen "was about the bignefs of a goofe egg. Thofe that are found frefh "and new, are generally entire, very little, if at all, broken or dif-"perfed: fome of the maffes are curled or convoluted fomewhat like "the *ileum*, or as a garden-fnail appears when the fhell is broken off "from it. In confiftence and colour, it pretty much refembles boiled "ftarch, or rather a folution of *gum tragacanth*. I fet fome of this "gelly on the fire in a filver veffel: it did not diffolve, as does cold "boiled ftarch when it is fet again upon the fire; but became thick "and vifcous; the more fluid or watery part of it having gone off "in vapour. I let it ftand till the humidity was all evaporated. To "the bottom of the veffel adhered certain fkins and veffels, like thofe "of animal bodies. The infide of the porringer upon this operation "exhibited a gliftering like that of ifinglafs; and there proceeded "from it a kind of greafy fmell. Another experiment I made of the "gelly broken and put into fpring-water, which I fet to feeth upon "the fire, but not much of it diffolved. A piece of muflin being "dipt into it fo managed as with ftarch, was ftiffened as with that. "The glofs that it gave to the muflin might be rubbed off. The "gelly being put into water, fome of it fubfided; fome did not. In "the pieces that floated I obferved feveral bubbles, which I thought "were formed by the water intruded into and retained in the pores "of it.

"It is fometimes found with patches of a dirty yellow in it; "fometimes with black fpecks refembling little pellets of grumous "blood. Breaking one of the lumps, I difcovered and took out of "it feveral pieces of tough fkin, and of long tenacious ftring-like bo-"dies.

"dies. Macerating another of thefe maffes that I might clear the "ftrings, as I called them, from the fofter or more pulpy part of the "gelly, I found them branched and diftended through the whole "mafs. The fmaller branches in fize and figure like capillary blood-"veffels of a blackifh red. With thefe were broad pieces of a very "thin film or membrane. The mafs, though a large one of the fort, "might be drawn up and fufpended by thefe ftrings. The gelly, "when it has been kept for fome time, becomes putrid, and has a "ftrong fmell, like that of a dead carcafe in a putrid ftate. Chickens "will eat it.

"This ftar-fhot, as it is called, is very rarely to be met with on "the tillage-lands. At Oxendon, and in moft other places, we find "it chiefly in the lower and moifter ground, particularly on the "ledges of fod, upon the fides of trenches in meadows, upon and near "the banks of brooks or pools, on ant-hills and mould-banks now "and then in great plenty. It occurs fometimes in dry, barren, and "heathy ground. It does not appear for any number of years fuc-"ceffively in one and the fame place. At Pisford, in January 1702, "was fhown me a mafs of ftar-gelly lying upon a dead hedge that "I am well affured had its firft appearance there. The like has been "found upon a flat board at the top of a cherry-ladder, in Mr. "Courtman's garden at Thorpe. The laft in as compact a mafs as "thofe upon the ground are ufually found in.

"'Tis chiefly feen in mifty mornings, and in wet weather, in au-"tumn, in winter, and early in the fpring; feldom or never any that "is frefh and new in the time of froft, or in the fummer months.

"In 1700, there was no ftar-gelly to be found about Oxendon, "till a wet week in the end of February, when the fhepherds brought "me about thirty feveral lumps or maffes of it.

"Applied to the running heels of horfes, it has been found to be "of ufe; as alfo for pafting paper to pafteboard, glafs, and the like.

"As to the origin of this body, it has in many particulars a near "analogy with animal fubftances; as the defcription of it plainly "fhows. And by feveral other circumftances that are not men-"tioned, it appears to me to be only the difgorging or cafting of "birds of three or four forts; of thofe fort of fowl in particular "that at certain feafons do feed very plentifully upon earth-worms "and the like; and efpecially of the *fea-maw*, and the *winter-mew* "or *coddy-moddy*, birds of the gull kind, which are very ravenous. "The *coddy-moddies* come up into this country in great numbers at "the time this ftar-fhot is generally found, viz. in the autumn and "the winter months: frequent thofe very places where it ufually

"occurs,

" occurs, viz. moift meadows and the banks of brooks, more rarely " ploughed lands; and greedily devour earth-worms, which in " thofe places, and about that time of the year, are very nume-" rous. They generally come up the vallies, where our brooks " and rivers run, very early in the morning, even before the fhep-" herds or any body elfe are abroad in the fields; efpecially in foggy " mornings and before a ftorm, in fuch feafons and in fuch weather " as in a particular manner invite the earth-worms out of their " holes and receffes up upon the furface: and the birds return " again to feaward. In the month of September, 1708, I faw a " *coddy-moddy* fhot down to the ground, that on her fall upon the " ground, when almoft half-dead, difgorged a heap of half-digefted " earth-worms, much refembling the gelly called ftar-fhot.

" In fine, having compared the notes or marks of that difgorge " or cafting with thofe of the gelly, called ftar-fhot, I found them " fo much alike, I am fatisfied the latter is for the main the fame " origin as is the former. Some of thefe maffes I take to be dif-" gorged by herons and bitterns after having fed upon frogs, which " they fometimes do. Sir William Craven once fhot a bittern by " one of Winwick pools, which after great heaving and working " of her breaft, at length difcharged a quantity of this fort of gelly. " The worthy Mr. Thomas Clerke, of Watford, affures me, that " he has feen a mafs of ftar-gelly, wherein appeared the head and " other parts of a frog almoft diffolved into a gelly, like to that " which encompaffed it. Having kept a parcel of frogs fpawn " fome time by me, it had a fmell very like that of corrupted ftar-" fhot. Others of them, it is not unlikely, are difgorged by crows, " when they feed over-abundantly on earth-worms. The carrion " crow will likewife feed upon frogs and toads too, pecking them " into pieces, and fo devouring them; whereas the herons, &c. " fwallow them whole. The gelly upon the dead hedge, and on the " cherry-ladder, in the inftances above-mentioned, I am apt to " think came from crows or rooks. . . .

" 'Tis ufual with birds, the more ravenous fort efpecially, to caft " up what is uneafy and burthenfome to their ftomachs. This is " well known to thofe who are converfant and experienced in the " bufinefs of ordering and managing of birds, efpecially hawks. " We may reafonably fuppofe, that all other birds that have a " membranous ftomach, and voracious appetite, do the fame upon " any the like occafion; thefe in particular I have now mention-" ed, namely, herons and bitterns, which have a membranous fto-" mach, as have all the carnivorous birds: and the Winter-Mew,

" and

After this enumeration of the fpecies of Gulls and Mews well defcribed and diftinctly known, we fhall mention a few others, which might probably be ranged with the preceding, if their indications were more complete.

1. That which Briffon calls *the little gray mew*, faying, that it is *equal in bulk to the great cinereous mew*; and which feems to differ from that fpecies, or from that of the gray-mantled bill, becaufe it has white mixed with gray on the back.

2. That great Sea-Mew, mentioned by Anderfon, which preys on an excellent fifh, called in Iceland *runmagen*. He tells us, that this bird carries it afhore, and eats only the liver; and that the peafants inftruct the children to run up to the Mew as foon as it alights, and fnatch from it the fifh.

3. The bird killed by Mr. Banks, in the latitude of 1° 7′ north, and longitude 28° 50′, and which he terms the *black-footed gull*, or *larus crepidatus*. The excrements were of a bright red,

" and the carrion crow, whofe ftomachs are not furnifhed with fuch " thick mufcles, as are thofe of the granivorous birds. Thefe, the " *Winter-Mew* particularly, having glutted and overcharged their " ftomachs with earth-worms, or the like cold and vifcid food, they " caft it up again not duly diffolved; then efpecially when the " earth-worms, &c. are a new or more uncommon fort of food to " them. We have a parallel inftance in fome forts of fifhes, accord- " ing to the curious and judicious Mr. Ray, who takes the *Ballæ* " *Marinæ*, which are little round lumps (fome of them as big as " tennis-balls) of *feftucæ* amaffed together, to be caft out of fifhes " ftomachs."

approaching that of the liquor contained in the *helix*, which floats on the ſea; which renders it probable that the bird feeds on that ſhell-fiſh.

4. The Mew called by the inhabitants of the iſland of Luçon *taringting*, and which, from the character of vivacity aſcribed to it, and its habit of running ſwiftly on the ſhore, may be either the little gray mew or the laughing mew.

5. The Mew of the lake of Mexico, called by the inhabitants *acuicuitzcatl*, and of which Fernandez ſays nothing more.

6. Laſtly, a Gull obſerved by the Viſcount de Querhoënt, in the road off the Cape of Good Hope, and which, from the account he obligingly communicated, muſt be a ſort of the black-mantle, but its legs, inſtead of red, are ſea-green.

The LABBE, or DUNG-BIRD.

Larus Crepidatus. Gmel.
Catarracta-Cepphus. Will. and Ray.
Stercorarius. Briſſ.
Strund-jager, of the North.
The Black-toed Gull. Penn. and Lath.

CONSIDERING its ſize and figure, this bird might be ranged with the mews. But if it be of that family, it has loſt all fraternal affection; for it is the avowed and eternal perſecutor of its kindred, and particularly of the kittiwake. It keeps a ſteady eye on them, and when it perceives them betake to flight, it purſues without intermiſſion. The people of the north report that its object is to obtain the excrements from thoſe unhappy little mews; and they have, for that reaſon, called it *Strund-jager,* to which *Stercorarius* is ſynonymous. Moſt probably, however, this bird does not devour the dung, but only the fiſh which the kittiwakes drop from their bill or diſgorge *: eſpecially

* Some naturaliſts have alledged, that certain ſpecies of gulls purſue others for their excrements. I have done all that was in my power to aſcertain this fact, which I was always averſe to believe. I have frequently repaired to the ſea-ſhore to make obſervations,

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THE BLACK TOED GULL.

eſpecially as it catches fiſh itſelf, and alſo eats whale's blubber; and amidſt the abundance of nouriſhment with which the ſea ſupplies its inhabitants, it would be very ſtrange if the Labbe was reduced to ſwallow what all the reſt reject.

No perſon has better deſcribed theſe birds than Ghiſter, in the Memoirs of the Academy of Stockholm. "The flight of the Labbe," ſays he, "is ſwift and poiſed, like that of the "goſhawk. The ſtrongeſt wind cannot hinder "it from catching in the air the ſmall fiſh "thrown to it by the fiſhermen. When they

vations, and have diſcovered what give riſe to the fable. It is this:

The gulls maintain with each other a perpetual conteſt about their carnage, at leaſt the great and middle ſpecies: when one comes out of the water with a fiſh in its bill, the firſt which perceives it ſhoots down to ſnatch the prey; and if the fortunate plunderer haſtens not to ſwallow the capture, it will be purſued in its turn by others ſtill ſtronger, which ſtrike it violently with their bill; it cannot avoid them but by eſcaping, or by repelling its enemy; and whether that the fiſh incumbers its flight, or that it is overcome with fear, or ſenſible that the fiſh is the ſole motive of the purſuit, it quickly throws it up; the other, which ſees it drop, catches it dextrouſly before it reaches the water, and ſeldom miſſes to receive it.

The fiſh appears always white in the air, becauſe it reflects the light, and ſeems, by reaſon of the celerity of the flight, to drop behind the gull which vomits it. Theſe two circumſtances have deceived obſervers.

I have verified the ſame fact in my garden; I chaſed ſome large gulls ſhouting after them; they ran and diſgorged the fiſh which they had juſt ſwallowed; I threw it to them, and they caught it in the air, with as much alertneſs as dogs. *Note communicated by M. Baillon, of Montreuil-ſur-mer.*

" call *lab*, *lab*, it immediately repairs to receive " the fiſh, whether raw or dreſſed, or the other " food which is offered to it. It alſo takes the " herrings out of the buſſes, and if they are ſalt-" ed, it waſhes them before ſwallowing. One " can hardly approach it or fire upon it, un-" leſs ſome bait be thrown. But the fiſhermen " are kind to it, as it is an almoſt infallible " ſign of a herring-ſhoal; and when the Labbe " does not appear, their ſucceſs is ſmall. This " bird is almoſt always on the ſea; generally " two or three appear together, and very ſel-" dom five or ſix. When it cannot find pro-" viſion at ſea, it comes to the beach and at-" tacks the mews, which ſcream on its appear-" ance: but it ruſhes on them, and overtaking " them, it alights on their back, and obliges " them to caſt up the fiſh which they had juſt " ſwallowed. This bird, as well as the mews, " lays its eggs on the rocks; the male is " blacker and rather larger than the female *."

Though it is the Long-tailed Labbe to which theſe obſervations ſeem chiefly to apply, we conceive that they relate alſo to the ſpecies now under conſideration, whoſe tail is faſhioned ſo that the two middle feathers are the longeſt, but do not much exceed the others. Its bulk is nearly equal to that of the little mew, and its colour is dun cinereous, waved with gray-

* Collection Academique, *partie etrangere*, *tom.* xi. *p.* 51.

iſh:

iſh *: the wings are very large, and the legs are formed as in the mews, only not quite ſo ſtrong; the toes are ſhorter. But the bill differs more from that of theſe birds, the end of the upper mandible being armed with a nail or hook that appears added; a character in which the bill of the Labbe reſembles that of the petrels, though the noſtrils are not tubular.

The Labbe has, in the carriage of its head, ſomething of the bird of prey, and its predatory life belies not its appearance. It walks with its body erect, and ſcreams very loud: it ſeems, ſays Martens, to pronounce *i-ja* or *johan*, when heard at a diſtance, and its voice reſounds. Their mode of life neceſſarily diſperſes them; and that navigator ſays, that they are rarely found together: he adds, that the ſpecies ſeemed not to be numerous, and that he met with few about Spitzbergen. The ſtormy winds of the month of November, 1779, drove two of theſe birds upon the coaſts of Picardy: they were ſent to us by M. Baillon, and from them we have made the preceding deſcription.

* This colour is lighter below the body; and ſometimes, according to Martens, the belly is white.

[A] Specific character of the *Larus Crepidatus*: "Its two middle tail-quills are longer than the reſt." It is found in the northern parts of Europe and America, and even on the Atlantic. It weighs eleven ounces; its length is fifteen inches, and its alar extent thirty-nine. Linnæus ſays, that it lays two eggs, which are pale ferruginous, ſpotted with black.

The LONG-TAILED LABBE.

Larus Parasiticus. Linn. and Gmel.
Stercorarius Longicaudus. Briss.
Plautus Stercorarius. Klein.
Catarracta Parasitica. Brun.
The Arctic Bird. Edw.
The Arctic Gull. Penn. and Lath. *

THE production of the two middle feathers of the tail in two detached and diverging shafts, characterises this species, which is of the same bulk with the preceding. It has a black cap on the head; its neck is white, and all the rest of its plumage gray: sometimes the two long feathers of the tail are black. This bird was sent to us from Siberia, and we think that it is the same species with that found by Gmelin in the plains of Mangasea, near the banks of the river Jenisea. It occurs likewise in Norway, and even in Finmark and Angermania: and Edwards received it from Hudson's Bay, where, he observes, the English, no doubt on account of its hostilities against the mew, call it the *Man-of-war Bird*; a name beforehand applied,

* In Denmark it is called *Strondt-jager*, or *Schyt-valk* (dung-bird): in Sweden *Swart-lasse*; and in Angermania *Labben*: in Norway *Kyuffwa* or *Tjufva*.

and

and with better reaſon, to the frigat. That author adds, that, from the length of its wings and the weakneſs of its legs, he ſhould have judged that this bird lived more flying at ſea than walking on land: yet, he remarks, the feet are as rough as a file, and proper to cling to the ſlippery backs of large fiſhes. Edwards entertains the ſame opinion with us, that the Labbe, by the form of its bill, is intermediate between the mews and petrels.

Briſſon reckons a third ſpecies of Labbe, the *Stercorarius Striatus* *; but, as it is founded on Edwards' deſcription, who regarded it as the female of the Long-tailed Labbe, we cannot adopt it. We alſo are of opinion, that it is only a variety from age or ſex; and we even ſuſpect that our firſt ſpecies might perhaps admit the ſame arrangement. In that caſe, we ſhould have only one kind of Labbe, of which the adult or male would be that with two long feathers in the tail, and the female would be that repreſented by Edwards; the mantle deep aſh-brown on the wings and tail, with the fore ſide of the body of a dirty white gray; the thighs, the lower belly, and the rump, croſſed with blackiſh and brown lines.

* "Above brown; the feathers edged at the tip with tawny; "below dirty white, ſtriped tranſverſely with brown; its head "brown; its throat whitiſh brown; its tail-quills white at their "origin, and deep brown the reſt of their length." *Briſſon.*

[A] Specific character of the *Larus Paraſiticus*: "Its two middle tail-quills are very long."

The ANHINGA.

Plotus Anhinga. Linn. and Gmel.
The White-bellied Darter. Lath.

If regularity of form in animals, and ſymmetry of proportion, ſtrike us as graceful and beautiful, and if the rank which we aſſign them correſponds to the feelings they excite; nature knows not ſuch diſtinctions. She loves them becauſe they are the children of her creation; and her attachment requires no other plea. She cheriſhes alike in the deſert the elegant *gazel* * and the ſhapeleſs camel; the pretty muſk † and the gigantic *giraff* ‡: ſhe launches into the air at once the magnificent eagle and the hideous vulture; and ſhe conceals under the earth and in the waters generations innumerable of inſects, faſhioned in every fantaſtic ſhape. All varieties of figure and ſtructure ſhe admits, provided they are ſuited to the ſubſiſtence and propagation of the kind. The *mantes* live under the form of a leaf: the ſea-urchins are impriſoned within a ſpherical ſhell: the vital juices filter and circulate

* *Antilope-Dorcas.* Linn. *The Barbarian Antelope.* Penn.
† *Moſchus Pygmæus.* Linn. *The Guinea Muſk,* Penn.
‡ *Camelopardalis-Giraffa.* Linn. *The Camelopard.* Penn.

through

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THE WHITE-BELLIED AHINGO.

through the branches of the *asterias*. The head of the *zygena* is flattened into a hammer; and the whole body of the moon-fish is rolled into a spiny globe. And do not a thousand other productions of figures equally strange demonstrate, that the universal mother has aimed at diffusing animation, and of extending it to all possible forms? Not content with varying the traces and shades of the original pictures, does not she seem solicitous to draw communicating lines from each genus to all the others; and thus, from her rudest sketches to her most finished performances, all are connected and interwoven? Thus we have seen that the ostrich, the cassowary, and the dodo, by the shortness of their wings, the weight of their body, and the largeness of the bones of their legs, form the shade between the quadrupeds and the birds: the penguins are a-kin to the fish: and the Anhinga, the subject of this article, exhibits a reptile grafted on the body of a bird. Its excessively long and slender neck, and its small cylindrical head, rolled out like a spindle, of the same girth with the neck, and drawn out into a long sharp bill, resemble both the figure and the motion of a snake, whether the bird nimbly extends its head to fly from the tops of trees, or unfolds it and darts it into the water to pierce the fishes.

These singular analogies have equally struck all who have observed the Anhinga in its na-

tive country * (Brazil and Guiana); they ſtrike us even in the dried ſpecimens of our cabinets. The plumage of the neck and head does not alter its ſlender ſhape; for it is a cloſe down, ſhaven like velvet: the eyes are of a brilliant black, with the iris golden, and encircled by a naked ſkin: the bill is jagged at the tip with ſmall indentings turned backwards. The body is ſcarcely ſeven inches long, and the neck alone meaſures double.

The extreme length of the neck is not the only diſproportion that ſtrikes us in the figure of the Anhinga. Its large and broad tail, compoſed of twelve ſpread feathers, differs no leſs from the ſhort round ſhape which obtains in moſt of the ſwimming birds: yet the Anhinga ſwims, and even dives, only holding its head out of the water, in which it plunges entirely on the leaſt ſuſpicion of danger: for it is very wild, and can never be ſurprized on land. It keeps conſtantly on the water, or perched on the talleſt trees, by the ſides of rivers and in overflowed ſavannas. It builds its neſt on theſe trees, and repairs among them to paſs the night. Yet it is entirely palmated, its four toes being connected by a ſingle piece of membrane, and the nail of the middle one ſerrated within. Theſe coincidences of ſtructure and habits ſeem to indicate an affinity between the Anhinga and the cormorant

* Marcgrave.—Barrere.

and

and boobies; but its ſmall cylindrical head, and its bill drawn out to a point, without any hook, diſtinguiſh it from theſe two kinds of birds.—The ſkin of the Anhinga is very thick, and the fleſh commonly fat, but has a diſagreeable oily taſte: Marcgrave found it to be no better than that of the gull, which is ſurely very bad.

None of the three Anhingas figured in our *Planches Enluminées* exactly reſembles that deſcribed by Marcgrave. N° 960 has, like that naturaliſt's, the upper ſide of the back dotted, the end of the tail fringed with gray, and the reſt of a ſhining black: but all the body is black, the head and neck are not gray, and the breaſt is of a ſilvery white. N° 959 has not the tail fringed *. Yet we think that theſe two birds, which were brought from Cayenne, are really of the ſame ſpecies with the Brazilian Anhinga, deſcribed by Marcgrave; the differences of colours not exceeding what, in the plumage of the water birds eſpecially, might reſult from age or ſex. Marcgrave remarks too, that the nails of his Anhinga were reflected and very ſharp, and that it uſes them to catch fiſh; that its wings are large, and reach,

* *Plotus Melanogaſter.* Gmel.
The Black-bellied Anhinga. Penn.
The Black-bellied Darter. Lath.

Specific character: "Its head is ſmooth; its belly black."

when

when closed, to the middle of its long tail. He seems, however, to over-rate its bulk in comparing it to the duck. The Anhinga which we know, may be about thirty inches, or even more, from the tip of the bill to the end of the tail: but this large tail and its long neck occupy the largest share of this measure, and its body does not appear to exceed that of a morillon.

[A] Specific character of the *Plotus Anhinga*: "Its head is "smooth; its belly white."

The RUFOUS ANHINGA.

Anhinga Melanogaster, var. 3. Gmel.

WE have seen that the Anhinga is a native of South America, and, notwithstanding the possibility that such a bird, furnished with long wings, might traverse the ocean, like the cormorants and the boobies, I should have restricted it to those countries; nor would the denomination merely of Senegal Anhinga have altered my opinion, had not a note of Adanson, accompanying a specimen, assured us, that a species of Anhinga inhabits the coast of Africa, where the people of the country call

 it

it *kandar*. This Senegal Anhinga differs from thoſe of Cayenne, becauſe its neck, and the upper ſide of its wings, are of a rufous fulvous, marked by pencils on a dark brown ground, the reſt of the plumage being black. Its figure, its port, and its bulk, are exactly the ſame as in the American Anhingas.

The SHEARBILL.

LE BEC-EN-CISEAUX. *Buff.*

Rhynchops Nigra. Linn. and Gmel.
Rygchopſalia, Briſſ.
The Cutwater. Cateſby.
The Black Skimmer. Penn. and Lath.

THE mode of life, the habits, and œconomy of animals, are not ſo free as might be ſuppoſed. Their actions reſult not from inclination and choice, but are the neceſſary effects of their peculiar organization and ſtructure. Nor do they ſeek ever to infringe or evade the law of their conſtitution: the eagle never abandons his rocks, or the heron her ſhores: the one ſhoots down from the aerial regions, to plunder or murder the lamb, founding his preſcriptive right on his ſtrength, his armour, and his habitual rapine; the other, ſtanding in the mire, patiently expects the glimpſe of its fugitive prey. The woodpecker never forſakes the trees, round which he is appointed to creep. The ſnipe muſt for ever remain in its marſhes; the lark in its furrows, and the warbler in its groves. All the granivorous birds ſeek the inhabited countries, and attend on the progreſs of cultivation. While thoſe

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thoſe which prefer wild fruits and berries, perpetually fly before us, and cheriſh the wilds, and foreſts, and mountains: there, remote from the dwellings of man, they obey the injunctions of nature. She retains the hazel grous under the thick ſhade of pines; the ſolitary blackbird under his rock; the oriole in the foreſts, which reſound with its notes; while the buſtard ſeeks its ſubſiſtence on the dry commons, and the rail in the wet meadows. Such are the eternal, immutable decrees of nature, as permanent as their forms: theſe great poſſeſſions ſhe never reſigns, and on theſe we vainly hope to encroach. And are we not continually reminded of the weakneſs of our empire? She obliges us even to receive troubleſome and noxious ſpecies: the rats make a lodgment in our houſes, the martins in our windows, the ſparrows in our roofs; and when ſhe conducts the ſtork to the top of our old ruinous towers, already the habitation of the mournful family of nocturnal birds, does ſhe not haſten to reſume the poſſeſſions which we have uſurped for a time, but which the ſilent lapſe of ages will infallibly reſtore to her?

Thus the numerous and diverſified ſpecies of birds, led by inſtinct, and confined by their wants to the different diſtricts of nature, have apportioned among themſelves the air, the earth, and the water. Each holds its place, and enjoys its little domain, and the means of ſubſiſtence, which the extent or defect of its faculties

will

will augment or abridge. And as all the poſſible gradations in the ſcale of exiſtence muſt be filled up, ſome ſpecies, confined to a ſingle mode of ſupport, cannot vary the uſe of thoſe imperfect inſtruments which nature has beſtowed on them. Thus the ſpoonbill ſeems formed for gathering ſhell-fiſh: the ſmall flexible ſtrap and the reflected arch of the avoſet's bill, reduce it to live on fiſh-ſpawn: the oyſter-catcher has an ax-ſhaped bill, calculated for opening the ſhells: and the croſsbill could not ſubſiſt, were it not dextrous in plucking the ſcales from the fir-cones. Laſtly, the *Shearbill* could neither eat ſidewiſe, nor gather food, nor peck forwards; its bill conſiſting of two pieces extremely unequal, the lower mandible, being long and extended diſproportionately, projects far beyond the upper, into which it falls like a razor into its haft*. To catch its prey with this awkward and defective inſtrument, the bird is obliged to fly, ſkimming the ſurface, and with its lower mandible cutting the water. By this neceſſary and laborious exertion, the only one it can perform, it ſhovels up the fiſh, and earns its ſubſiſtence †. Hence ſome obſervers have called it *cutwater*: the name *Shearbill (bec-en-ciſeau)* is derived from

* Ray.

† They feed on ſmall fiſh, which they catch flying where the water is ſhallow; they keep their lower mandible almoſt always in the water, and when they feel a fiſh they cloſe both mandibles, which may be termed the blades. *Memoirs on the Natural Hiſtory of Guiana, communicated by M. de la Borde, king's phyſician at Cryenne.*

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the ſtructure of its bill; the lower mandible being hollowed out by a channel, and furniſhed with two ſharp ledges, receives the upper one, which is flattened like a blade.

The point of the bill is black, the part next the head is red, and ſo are the feet, which have the ſame ſtructure as thoſe of the gulls. The Shearbill is nearly equal to the little cinereous mew: the whole upper ſurface of the body, the fore ſide of the neck, and the front, are white: it has alſo a white ſtreak on the wing, ſome of whoſe quills, and alſo the lateral ones of the tail, are partly white: all the reſt of the plumage is black, or blackiſh brown: in ſome ſubjects it is ſimply brown, which appears to indicate a variety from age *; for, according to Cateſby, the male and female are of the ſame colour.

Theſe birds are found on the coaſts of Carolina and of Guiana; on the latter they are numerous, and appear in flocks, almoſt always on wing, and only alight in the mire. Though their wings are very long, their flight is remarked to be ſlow †: if it were ſwift, they could not diſtinguiſh and raiſe their prey, as they ruſhed along

* *Ryncbops Fulva.* Linn.
Specific character: "It is fulvous, its bill black." However, Gmelin reckons it only a variety.

† *Memoirs communicated by M. de la Borde.*

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the ſurface of the water. According to the obſervations of M. de la Borde, they come in the rainy ſeaſons to neſtle on the iſlets, and particularly the *Grand Connetable*, near the ſhores of Guiana.

The ſpecies ſeems peculiar to the American ſeas; nor can we extend it to the Eaſt Indies, becauſe Ray's continuator mentions a drawing ſent from Madras, but which was perhaps made elſewhere. We are alſo of opinion, that the ſheerwater of the South Sea, ſo often mentioned by Captain Cook, is not the ſame with the Shearbill of Cayenne, though they have received the ſame name: for, beſides the immenſe difference between the hot climate of Cayenne and the pinching colds of the South Seas, it appears, from two paſſages of his narrative, that his ſheerwaters were petrels *, and that they occur in the higher latitudes, and even on the frozen iſlands with the albatroſſes and penguins †.

* "We now began to ſee ſome of that ſort of petrels ſo well "known to ſailors by the name of ſheerwaters, latitude 58° 10′ S. "longitude 50° 54′ E." *Second Voyage*, vol. i. p. 45.—"We had "another opportunity of examining two different albatroſſes, and a "large black ſpecies of ſheerwater, *Procellaria Æquinoxialis*: we "had now been nine weeks out of ſight of land." *Idem.*

The ſheerwater is the ſame with the puffin, which will afterwards be deſcribed, and which is in fact a ſpecies of petrel.

† "We were in the midſt of the ice (in 61° 51′ S. and 95° E.); "we had but few birds about us; they were albatroſſes, blue petrels, "and ſheerwaters." *Cook.*—"During our run among the ice iſlands, "the

" the pintadoes and the ſheerwaters occurred in ſmaller numbers, " but the penguins began to appear." *Cook.*—" As the weather " was often calm, Mr. Banks went into the boat, to ſhoot birds, and " he brought ſome albatroſſes and ſheerwaters; the latter were " ſmaller than thoſe which we ſaw in the ſtraits of Le Maire, and had " a deeper colour on the back." *Cook's Firſt Voyage.*—" Sheerwaters " are ſeen along the coaſt of Chili." *Carteret.*

[A] Specific character of the Black Skimmer, *Rynchops Nigra:* " It is blackiſh, below white, its bill red at the baſe."

The NODDY.

Sterna Stolida. Linn. and Gmel.
Gavia Fuſca. Briſſ.
Paſſer Stultus. Nieremb. Johnſt. Will. and Charl.

MAN, who rules with haughty ſway on land, is ſcarce known in another great diviſion of nature's vaſt empire. On the ſtormy face of the ſeas, he finds enemies of ſuperior force, obſtacles that baffle his art, and dangers that exceed his courage. When he dares to paſs thoſe barriers of the world, all the elements combine to puniſh his audacity, and nature reclaims that dominion which he vainly aſpires to uſurp; there he is a fugitive, not a maſter. If he diſturbs the inhabitants, if he enſnares or transfixes ſome unhappy victims, the bulk of them, ſafe in the boſom of the abyſs, will in ſome future period ſee the winds and ſtorms, and piercing colds, ſweep from the face of the ocean its troubleſome and deſtructive gueſts.

In fact the animals, which nature, though with feebler faculties, has fortified againſt the billows and the tempeſts, know not our dominion. Moſt of the ſea-birds ſuffer us to approach them, and even to ſeize them, with a degree of unconcern that appears to border on ſtupidity, but which clearly

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THE NODDY.

clearly evinces that man is to them a new and ſtrange being, and that, far removed from his controul, they enjoy full and entire liberty. We have already ſeen ſeveral inſtances of that apparent weakneſs, or rather profound ſecurity, which characterizes the winged inhabitants of the ocean. The Noddy, of which we now treat, has been termed the *fooliſh ſparrow (paſſer ſtultus)*; a very inaccurate denomination, ſince the Noddy is not a ſparrow, but reſembles a tern or little mew, and, in fact, forms the gradation between theſe two kinds of birds: for it has the feet of the mew, and the bill of the tern. All its plumage is dark brown, except a white ſpace, like a cowl, on the top of the head. Its bulk is nearly equal to that of the common tern.

We have adopted the name *Noddy* (Noddi) which occurs frequently in Engliſh voyages *, becauſe it expreſſes the ſtupidity, or ſilly confidence, with which the bird alights on the maſts and yards of ſhips † and even on the ſailors' hands ‡.

* Particularly in thoſe of Dampier and Cook.

† Theſe are ſtupid birds, which, like the boobies, allow themſelves to be caught by the hand, on the yards and the rigging of the veſſel, on which they alight. *Cateſby.*

‡ The *Thouaroux* (the name of the Noddies in Cayenne) come to fiſh on very ample ſpace, in company with the frigats; I never ſaw them alight on the water, like the gulls; but at night they come roving about the veſſels to find repoſe, and the ſailors catch them by lying on the top of the ſtern, and ſtretching out their hand, upon which the birds make no ſcruple to alight. *Memoirs communicated by M. de la Borde, king's phyſician at Cayenne.*

 The

The ſpecies ſeems not to extend much beyond the tropics *; but is very numerous in its haunts. "At Cayenne," ſays M. de la Borde, "there are an hundred Noddies for one "booby, or man-of-war bird: they particularly "cover the rock of the *Grand Connetable*, "whence they come to fly about the veſſels; "and when a cannon is fired, they riſe embo-"died in a thick cloud." Cateſby alſo ſaw them in great numbers, flying together, and dropping continually on the ſurface of the ſea, to catch the little fiſh, ſhoals of which are impelled by violent winds. The birds ſeem to perform their part with great alacrity and cheerfulneſs, if we judge from the variety of their cries, and their great noiſe, which may be heard ſome miles. "All this," adds Cateſby, "has "place only in the breeding ſeaſon, when they "lay their eggs on the naked rock †: after "which

* *Cateſby.*—Noddies and egg-birds (which ſeem to be a kind of tern) in 27° 4′ ſouth latitude, and 103° 56′ weſt longitude, about the beginning of March. *Cook.*—On the 28th February, in 33° 7′ ſouth latitude, and 102° 33′ weſt longitude (in ſailing towards the tropic) we began to ſee flying fiſh, egg-birds, and Noddies, which are ſaid not to go above ſixty or eighty leagues from land; but of this we have no certainty. No one yet knows to what diſtance any of the oceanic birds go to ſea; for my own part, I do not believe that there is one in the whole tribe that can be relied on, in pointing out the vicinity of land. *Idem.*—The Noddies are ſeen more than an hundred leagues from land. *Cateſby.* (The egg-bird of Cook is the ſame with the Noddy of Dampier, and is the ſooty tern, *Sterna Fuliginoſa*, already deſcribed).

† On thoſe of Bahama. *Cateſby.*—On the iſle of Rocca. *Dampier.*—

"which each Noddy ranges at large, and roves "solitary on the vaſt ocean."

pier.—On the ſouth ſide of St. Helena, by ſeveral ſmall iſlets, which are properly but rocks, where we ſee thouſands of black gulls, whoſe eggs, which are very good eating, were laid on the bare rock. The multitude of theſe birds was ſuch, that we took thouſands of them, and they ſuffered themſelves to be knocked down with ſticks; whence, no doubt, they have been called *fooliſh gulls*. *Recueil des Voyages de la Compagnie des Indes Orientales.*

[A] Specific character of the Noddy, *Sterna Stolida*: "Its body "is black, its front whitiſh, its eye-brows intenſe black."

The AVOSET.

L' Avocette. *Buff.*

Recurviroſtra-Avoſetta. Linn. and Gmel.
Avocetta. Geſner, Aldrov. Johnſt. Will. Briſſ. &c.
Recurviroſtra. Rzacynſki, Barrere, &c.
Plotus Recurviroſter. Klein.
The Scooper. Charleton.
The Crooked-bill. Dale and Plott.
The Scooping Avoſet. Penn. and Lath. *

THE webbed birds have, for the moſt part, ſhort legs. Thoſe of the Avoſet are very long; and this diſproportion, which would almoſt alone diſtinguiſh it, is attended with a character ſtill more ſingular, that is, the inverſion of its bill, which is bent into an arc of a circle, whoſe centre lies above the head: the ſubſtance of the bill is ſoft and almoſt membranous at its tip †; it is thin, weak, ſlender, compreſſed horizontally, and incapable of defence and effort. It is one of

* The word *Avocetta* is of Italian origin; the bird has alſo in Italy the names *Beccotorto* and *Beccorella*, expreſſive of its crooked bill; and on Lake Maggiore it is called *Spinzago d'Aqua*, to diſtinguiſh it from the curlew, which is termed ſimply *Spinzago.* In Germany it is ſtyled *Frembder Waſſer Vogel* (foreign water bird), and *Schabel* or *Schnabel*; and in Auſtria *Krambſchabl*: in Sweden *Skiaër-flaëcka*: in Daniſh *Klyde, Lanfugl, Forkeert, Reguſpove*: in Turkey *Zeluk* or *Keluk*.

† Linnæus.

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THE SCOOPING AVOSET.

those errors or essays of nature, which if carried a little farther would destroy itself; for if the curvature of the bill were a degree increased, the bird could not procure any sort of food, and the organ destined for the support of life would infallibly occasion its destruction. The bill of the Avoset may therefore be regarded as the extreme model which nature could trace, or at least preserve; and for that reason it is the most distant from the forms exhibited in other birds.

It is even difficult to conceive how this bird feeds by help of an instrument that can neither peck nor seize its prey, but only rake in the softest mud. It seems to employ itself in searching the froth of the waves for fish-spawn, which appears to be its chief support. It probably eats worms also; for its bowels contain a glutinous substance, fat to the touch, of a colour bordering on orange yellow, in which are some vestiges of fish-spawn and aquatic insects. This gelatinous mass is always mixed in the stomach with little white crystalline stones *: sometimes in the intestines there occurs a gray or earthy green matter, which seems to be the slimy sediment which fresh waters, swelled by rains, deposit on their bed. The Avoset frequents the mouths of rivers and streams †, in preference to other parts of the sea-shore.

* Willughby says, that he could find nothing else.

† At least in Picardy, where these observations were made. (In England also, at the mouth of the Severn.)

 This

This bird is ſomewhat larger than the lapwing: its legs are ſeven or eight inches high; its neck is long, and its head round; its plumage is ſnowy white on all the fore ſide of the body, and interſected with black on the back; the tail is white, the bill black, and the feet blue.

The Avoſet runs by means of its long legs on bottoms covered with five or ſix inches of water: but in deeper parts, it ſwims, and in all its motions it appears lively, alert, and volatile. It ſtays but a ſhort while in the ſame place; and in its paſſages to the coaſt of Picardy, in April and November, it often diſappears the morning after its arrival: ſo that ſportſmen find great difficulty to kill or catch a few. They are ſtill more rare in the inland country: yet Salerne ſays, that they have been ſeen to advance pretty high on the Loire. He aſſures us, that they are very numerous on the coaſts of Low Poitou, where they breed *.

It appears from the route which the Avoſets hold in their paſſage, that, on the approach of winter, they journey towards the ſouth, and return in the ſpring to the north: for they occur in Denmark †, in Sweden, on the ſouthern

* The Avoſet is very rare in the Orleanois . . . On the contrary, nothing is more common on the coaſts of Lower Poitou; and in the breeding ſeaſon, the peaſants take their eggs by thouſands to eat: when driven off its neſt, it counterfeits lameneſs as much or more than any other bird. *Salerne.*

† Muller and Brunnich.

point

point of the iſle of Oëland *, on the eaſtern coaſts of Great Britain †. Flocks of them arrive alſo on the weſtern ſhore of that iſland, but remain no longer than a month or two, and retire when the cold ſets in ‡. Theſe birds only viſit Pruſſia ‖; they very ſeldom appear in Sweden; and, according to Aldrovandus, they are not more frequent in Italy, though well known there, and juſtly named §. Some fowlers have aſſured us, that their cry may be expreſſed by the ſyllables, *crex, crex*. But we cannot, on ſuch ſlender authority, infer, that the Avoſet is the ſame with the crex of Ariſtotle:—"For the *crex*," ſays the philoſopher, "*wages war againſt the* "*oriole and the blackbird*. And the Avoſet can certainly have no quarrel with two birds which inhabit the woods. Beſides, the cry, *crex, crex*, belongs equally to the jadućka ſnipe and the land rail.

In moſt of the Avoſets there is dirt on the rump, and the feathers ſeem worn off by rubbing. Probably theſe birds wipe their bill on their feathers, or lodge it among them when they ſleep; ſince the form ſeems as cumberſome to be diſpoſed during reſt, as awkward for action, unleſs, like the pigeon, it lays its head on its breaſt during repoſe.

* Linnæus.
† Ray.
‡ Charleton.
‖ Rzaczynſki.
§ *Beccotorto*; i. e. twiſted-bill.

The

The obſerver * who has communicated theſe facts is perſuaded, that the Avoſet is at firſt gray, and he adopts this opinion becauſe many of thoſe which arrive in November have the tips of their ſcapular feathers gray, as well as thoſe of the rump; but theſe feathers, and thoſe which cover the wings, preſerve longeſt the livery of their birth: the dull colour of the great quills of the wings, and the pale tint of their legs, which in the adults are of a fine blue, leave no doubt but the Avoſets whoſe plumage is mixed with gray are young ones. There are few exterior differences in this ſpecies between the male and female: the old males have much black, but the old females have nearly the ſame; only the latter ſeem to be ſmaller, and the head of the former rounder, with the fleſhy tubercle that riſes under the ſkin, near the eye, more inflated. We ought not to admit varieties into the ſpecies, though the Avoſets of Sweden, according to Linnæus, have the rump black, which is white in the multitudes that inhabit a certain lake in Lower Auſtria, as Kramer remarks.

Whether from timidity or addreſs, the Avoſet ſhuns ſnares, and is very difficult to take †. The ſpecies is no where common, and ſeems to contain few individuals.

* M. Baillon, of Montreuil-ſur-mer.

† "I have practiſed every poſſible ſtratagem to take theſe birds, "but could never ſucceed." *Obſervations communicated by M. Baillon.*

[A] Specific

[A] Specific character of the Scooping Avoſet, *Recurviroſtra-Avocetta:* " It is variegated with black and white." The Avoſets are frequent on the eaſtern ſhores of Great Britain in winter; they alſo viſit the mouth of the Severn, and ſometimes the pools of Shropſhire. They feed on the worms and inſects which they ſcoop out of the ſand, which often ſhews the marks of their bill. They lay two white eggs, as large as a pigeon's, of a greeniſh hue, with large ſpots of black. They are common in Tartary, about the Caſpian ſea.

The RUNNER.

Le Coureur. *Buff.*

Corrira Italica. Gmel.
Corrira. Briſſ.
Trochilus. Aldrov. Johnſt. Will. Ray, and Charleton.
The Italian Courier. Lath.

ALL the birds which ſwim, and whoſe toes are connected by membranes, have the leg ſhort, the thigh contracted, and often partly concealed under the belly. Their feet conſtructed and diſpoſed like broad oars, with a ſhort handle, and in an oblique poſition, ſeem expreſsly calculated for impelling the little animated ſhip: the bird is at once the veſſel, the rudder, and the pilot. But amidſt this grand fleet of winged navigators, three ſpecies form a ſeparate ſquadron: their feet are indeed furniſhed with membranes like the other ſwimming birds, but they are at the ſame time raiſed on tall legs, and, in this reſpect, reſemble the waders. Thus they form the intermediate gradation between two very different claſſes.

Theſe three birds with tall legs and palmated feet are the avoſet, the flamingo, and the Runner, ſo called according to Aldrovandus, becauſe

caufe it runs fwiftly along the fhores. That naturalift, to whom alone we are indebted for the account of this bird, tells us, that it is not rare in Italy. But it is unknown in France, and in all probability it occurs in no other country of Europe, at leaft it is very uncommon. Charleton fays, that he faw one, without mentioning whence it came. According to Aldrovandus, the thighs of this bird are fhort in proportion to the length of its legs: the bill is yellow throughout, but black at the tip; it is fhort, and does not open much: the mantle is iron gray, and the belly white: two white feathers with black points cover the tail. This is all that the naturalift informs us; he adds nothing about its meafures; but, if we judge from his figure, they are nearly the fame with thofe of the plover.

Both Ariftotle and Athenæus fpeak of a bird that runs fwiftly, and which they term *trochilos*, faying, that " it comes in calm weather, to feek " its food on the water." But is this bird a palmiped and fwimmer, as Aldrovandus afferts, while he refers to it his courier; or is it not, as Ælian hints, a wader of the kind of gallinules or ringed plovers? It feems difficult to decide, from the fcanty information tranfmitted from the ancients. All that we can gather is, that this *trochilos* is an aquatic bird; and with fome probability Ælian refers to it the report of antiquity, that it entered boldly the jaws of the crocodile

crocodile to eat the leeches, and warn it of the approach of the *ichneumon*. This fable has been applied the moſt abſurdly imaginable to the gold-creſted wren, from a confuſion of names, that little choriſter being often termed *trochilos*, becauſe of its whirling flight.

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THE RED FLAMINGO.

The RED FLAMINGO.

Le Flammant, *ou* Le Phénicoptère.
Buff.

Phœnicopterus Ruber. Linn. and Gmel.
Phœnicopterus. Geſner, Aldrov. Johnſt. Ray, Briſſ. &c. *

THE name *Phœnicopterus*, applied by the Greeks, and adopted by the Romans, expreſſes the ſtriking feature of this bird—the crimſon colour of its wings. But this is not the only remarkable character of the bird: the bill is flattened with a ſudden bend above, thick and ſquared below, like a broad ſpoon; its legs are exceſſively tall; its neck is long and ſlender; its body is more elevated, though ſmaller, than that of the ſtork, and preſents a ſingular and conſpicuous figure among the great waders.

* In Greek Φοινικοπτερος, from φοινιξ, the Phœnician dye, and πτερον, a wing. And hence this name has, in the modern languages, been tranſlated by words denoting flame-colour. In Portugueſe *Flamingo*: in Spaniſh *Flamenco*: in French *Flambant* or *Flammant*; which, as Buffon ſays in the text (we have omitted the paſſage) was afterwards written *Flamand (Flemiſh)*; and, by this ridiculous miſtake, the bird was imagined to be a native of Flanders. In France it was anciently called *Becharu*, becauſe its bill reſembles a plough-ſhare (*ſoc de charrue*). In Cayenne it has the name *Tokoko*.

Thoſe

Thoſe large ſemi-palmated birds, which haunt the ſides of waters, but neither dive nor ſwim, are judiciouſly reckoned by Willughby diſtinct and independent ſpecies: for the Flamingo in particular ſeems to form the gradation between them and the claſs of the great ſwimmers, which it reſembles by its half-webs, and becauſe the membrane ſtretched between the toes recedes in the middle by two ſcallops. All the toes are very ſhort, and the outer one extremely little: the body alſo is ſmall in proportion to the length of its wings and neck. Scaliger compares it to that of the heron, and Geſner to that of the ſtork; remarking, as well as Willughby, the exceſſive length of the ſlender neck. "When the Flamingo has attained its full "growth," ſays Cateſby, "it is not heavier "than a wild duck, and is yet five feet high." Theſe great differences in ſize, noticed by authors, have a reference to the age as well as to the varieties which they have alſo remarked in the plumage. This is generally ſoft and ſilky, and waſhed with red tints of greater or leſs vivacity and extent: the great quills of the wing are conſtantly black: the coverts, both the greater and leſſer, the exterior and interior, are imbued with fine flame-colour; which ſpreads and dilutes by degrees over the back and the rump, the breaſt and the neck; on the upper part of which, and on the head, the plumage is a

ſhaven and velvet down. The top of the head is naked; the neck is very ſlender, and the bill is broad; ſo that the bird has an uncommon appearance. Its ſkull ſeems to be raiſed and its throat dilated before, to receive the lower mandible, which is very broad at its origin. The two mandibles form a round and ſtraight canal as far as their middle; after which the upper one bends ſuddenly, and its convexity changes into a broad ſurface: the lower mandible reflects proportionally, but always preſerves the ſhape of a broad gutter; and the upper one, by a ſmall curvature at its point, applies to the extremity of the lower mandible. The ſides of both are beſet internally with a ſmall black indenting, whoſe points are turned backwards. Dr. Grew, who has deſcribed this bill with great accuracy, remarks alſo a filament within, under the upper mandible, and which divides it in the middle. It is black from its tip to where it bends, and from thence to the root it is white in the dead bird, but, in the living ſubject, it ſeems liable to vary; ſince Geſner aſſerts, that it is of a bright red, Aldrovandus that it is brown, Willughby that it is blueiſh, and Seba that it is yellow. "To a ſmall round head," ſays Dutertre, "is joined a large bill four inches long, "half red, half black, and bent into the form of "a ſpoon." The Academicians, who have deſcribed this bird under the name of *Bécharu*, ſay,

ſay, that its bill is of a pale red, and contains a thick tongue edged with fleſhy *papillæ*, turned backwards, which fills the cavity or the large ſpoon of the lower mandible. Wormius alſo deſcribes this extraordinary bill; and Aldrovandus remarks how much nature has ſported in its conformation: Ray ſpeaks of its ſtrange figure. But none of them have examined it with ſuch attention as to decide a point which we ſhould be glad to aſcertain, viz. whether, as many naturaliſts alledge, the upper mandible is moveable, while the lower is fixed.

Of two figures of this bird, publiſhed by Aldrovandus, and ſent to him from Sardinia, the one expreſſes not the characters of the bill, which are accurately portrayed in the other. And we muſt remark by the way, that in our plate the ſwelling and flattening of the bill are too faint, and that it is repreſented too much pointed.

Pliny ſeems to claſs this bird with the ſtorks, and Seba has injudiciouſly ſuppoſed that the *phœnicopterus* was ranked by the ancients with the ibis. But it belongs to neither of theſe kinds: it forms a ſeparate diviſion. And beſides, when the ancients placed together analogous ſpecies, they did not follow the narrow views, or adhere to the ſcholaſtic methods, of our nomenclators; they obſerved in nature certain reſemblances of habits and faculties, which they conjoined in the ſame group.

 We

We may reaſonably wonder that the name *phœnicopterus* occurs not in Ariſtotle, though mentioned by Ariſtophanes, who ranges it among the marſh birds *. But it was rare and perhaps foreign in Greece. Heliodorus † expreſsly ſays, that the *phœnicopterus* inhabited the Nile: the old ſcholiaſt on Juvenal ‡ aſſerts, that it was frequent in Africa. Yet theſe birds ſeem not to remain conſtantly in the hotteſt climates; for ſome are found in Italy, and a much greater number in Spain §. It is only a few years ſince ſeveral of them arrived on the coaſts of Languedoc and Provence, particularly near Montpellier and Martigues ‖, and in the fens near Arles ¶. I am therefore aſtoniſhed that ſo well-informed an obſerver as Belon ſhould aſſert, that none are ever ſeen in France, but ſuch as had been carried thither. Did this bird extend its migrations firſt to Italy, where it was anciently foreign, and thence to the French coaſts?

It inhabits, we ſee, the countries of the ſouth, and is found from the coaſts of the Mediterranean to the extremity of Africa **. Great

* Λιμναῖος.

† Æthiopic. *lib*. vi.

‡ Sat. xi. 139.

§ Belon.

‖ Liſter, *Annot. in Apicium, lib*. v. 7.—Ray, *Synopſ. p*. 117.

¶ Peireſc. vita, *lib*. ii.

** Theſe birds are very common at the Cape; they paſs the day on the ſides of the lakes and rivers, and at night they retire to the mountains. *Kolben*.

 numbers

numbers occur in the Cape de Verd iſlands, according to Mandeſlo, who over-rates the bulk of their body when he compares it to that of a ſwan. Dampier met with ſome neſts of theſe birds in the iſle of Sal. They are abundant in the weſtern provinces of Africa, at Angola, Congo, and Biſſao, where, from a ſuperſtitious reſpect, the negroes will not ſuffer one of them to be hurt *; and they live undiſturbed in the midſt even of the dwellings. They occur likewiſe in the bay of Saldana †, and in all the countries adjacent to the Cape of Good Hope, where they ſpend the day on the coaſt, and retire in the evening to the rank herbs which grow on ſome parts of the contiguous lands ‡.

* The Flamingos are numerous in this canton, and ſo reſpected by the Mandingos of a village diſtant half a league from Geves, that they are found in thouſands; theſe birds are of the bulk of a turkey-cock . . . the inhabitants of the ſame village carry ſo far the reſpect for them, that they will not permit them to receive the leaſt injury. They leave them tranquil on the trees amidſt their dwellings, without being incommoded by their cries, which however are heard a quarter of a league. The French having killed ſome of them in this aſylum, were obliged to conceal them under the graſs, leſt the negroes ſhould be prompted to revenge the death of a bird ſo revered. *Relation de Brue, Hiſt. Gen. des Voy. tom.* ii. *p.* 590.

† In the multitude of birds ſeen in the bay of Saldana, the pelicans, the Flamingos, the ravens, which all have a white collar round the neck, numbers of ſmall birds of different kinds, not to mention ſea-fowl, which are of endleſs variety, fill the air, the trees, and the land, to ſuch degree, that a perſon cannot ſtir without putting up many." *Relation de Dounton, Hiſt. Gen. des Voy. tom.* ii. *p.* 46.

‡ Hiſt. Gen. des Voy. *tom.* v. *p.* 201.

The

The Flamingo is undoubtedly a migratory bird, but viſits only the warm and temperate regions, and never penetrates to the northern tracts. In certain ſeaſons, they appear in ſeveral places, nor can we be certain whence they come, but they never ſeem to travel towards the north; and if ſome ſolitary ſtragglers are found at times in the interior parts of France, they have been driven thither in a ſtorm. Salerne relates, as an extraordinary occurrence, that one was killed on the Loire. The hot countries are the ſcene of their migrations: and they have traverſed the Atlantic; for they are of the ſmall number of birds that inhabit the tropical regions of both continents *.

They are ſeen in Valparaiſo, at Conception, and at Cuba †, where the Spaniards call them *flamencos* ‡. They occur on the coaſt of Vene-

* In the iſland of Mauritius, or of France, there are many of the birds called *giants*, becauſe they carry their head ſix feet high; they are exceeding tall, and their neck is very long; their body is not larger than that of a gooſe: they feed in marſhy places; and the dogs often take them by ſurprize, as they require a conſiderable time to riſe from the ground. We once ſaw one at Rodrigue, and it was ſo fat that we caught it with the hand: it is the only one which we ever remarked, which makes me think that it had been driven thither by ſome violent wind, which it could not reſiſt. This game is pretty good. *Leguat.*

† In the ſmall iſlands under Cuba, which Columbus called the *Queen's Garden*, there are red birds ſhaped like cranes, which are peculiar to theſe iſlands, where they live on ſalt-water, or rather on what they find proper for their ſupport in it. *Herrera.*

‡ De Laet.

 zuela,

zuela, near the White iſland, that of *Aves*, and that of *Roche*, which is a group of rocks *. They are well known at Cayenne, where the natives of the country name them *tococo*; they fly in flocks on the ſea-beach †. They inhabit alſo the Bahama iſlands ‡. Sir Hans Sloane ranks them among the birds of Jamaica §. Dampier found them at Rio de la Hacha ‖. They are extremely numerous at St. Domingo ¶, in the Antilles and the Caribbee iſlands **, where

* De Laet.

† Barrere.—The woods at Cayenne are inhabited by Flamingos, colibris, ocos, and toucans. *Voyage de Froger.*

‡ Klein.

§ "Theſe are common in the marſhy and fenny places and "likewiſe ſhallow bays of Jamaica."

‖ I have ſeen Flamingos at Rio de la Hacha, and at an iſland ſituated near the continent of America, oppoſite to Curaçoa, and which the pirates call the *Flamingo Iſland*, becauſe of the prodigious number of theſe birds which breed in it. *Dampier.*

¶ In St. Domingo, the Flamingos appear in great numbers on the ſkirts of the marſhes; and as their feet are exceedingly tall, they may be taken at a diſtance for an army in martial array. *Hiſt. Gen. des Voy. tom.* xii. *p.* 228.—The places which the Flamingos frequent the moſt in St. Domingo, are the marſhes of Gonave and Cow Iſland, *(Iſle à Vache)* ſmall iſlands ſituated, the one weſt of Port-au-Prince, the other ſouth of the city of Cayes. They are fond of theſe iſlands, becauſe they are not inhabited, and becauſe they find in them many lagoons and ſalt-marſhes; they alſo much frequent the famous pool of Riquille, which belongs to the Spaniards. They are ſeen eaſt from the plain *Cul-de-ſac*, in a great pool which contains many iſlets; but the number of theſe birds is obſerved to diminiſh in proportion as the marſhes are drained, and the tall timber cut down which ſkirts them. *Extract from the Memoirs communicated by the Chevalier Lefebvre Deſhayes.*

** Hernandez, Rochefort.

they

they live in the little ſalt pools and the lagoons. That figured by Seba was ſent him from Curaçoa. They occur alſo in Peru *, and as far as Chili †. In ſhort, there are few parts of South America where navigators have not met with them.

Theſe American Flamingos are entirely the ſame with thoſe of Europe and Africa. The ſpecies appears ſingle and disjoined, ſince it admits of no variety.

Theſe birds breed on the coaſts of Cuba and of the Bahama iſlands ‡ on the deluged ſhores, and the low iſlets, ſuch as that of *Aves* §, where Labat found a number with their neſts. Theſe are little heaps of clayey and miry ſoil gathered from the marſhes, and raiſed about twenty inches into a pyramid in the middle of the water, which conſtantly waſhes the baſe; the top is truncated, hollow, and ſmooth, and, without any bed of feathers or herbs, receives the eggs, which the bird covers, ſays Cateſby, by ſitting acroſs the hillock ‖, its legs hanging down, like a man on

* De Laet.

† Frezier.

‡ Cateſby.

§ Fifty leagues to the windward of Dominica.

‖ I was ſhown a great number of theſe neſts; they reſemble truncated cones, compoſed of fat earth, about eighteen or twenty inches high, and as much in diameter at the baſe; they are always in water, that is, in meres or marſhes: theſe cones are ſolid to the height of the water, and then hollow like a pot bored at top; in this they lay two eggs, which they hatch by reſting on them, and covering

on a ſtool: ſo that only the rump and lower belly are of ſervice in the incubation. This ſingular poſition it is obliged to adopt on account of the length of its legs, which could never be bent under it if it were ſquat. Dampier gives the ſame deſcription of the mode of hatching in the iſland of Sal *.

The neſts are always placed in the ſalt-marſhes; they contain only two or at moſt three eggs, which are white, as thick as thoſe of a gooſe, and ſomewhat longer. The young do not begin to fly till they have gained almoſt their full growth; but they run remarkably ſwiftly a few days after they are hatched.

The plumage is at firſt of a light gray, and that colour becomes deeper, in proportion as

covering the hole with their tail. I broke ſome, but found neither feathers, nor herbs, nor any thing that might receive the eggs: the bottom is ſomewhat concave, and the ſides are very even. *Labat.*

* They make their neſt in the marſhes, where they can find plenty of ſlime, which they heap with their claws, and form hillocks reſembling little iſlets, and which appear a foot and a half above the water; they make the baſe broad, and taper the ſtructure gradually to the top, where they leave a ſmall hollow to receive their eggs. When they lay or hatch, they ſtand erect, not on the top but very near it, their feet on the ground and in the water, leaning themſelves againſt the hillock, and covering the neſt with their tail: their legs are very long, and as they make their neſt on the ground, they could not, without injuring their eggs or their young, have their legs in the neſt, nor ſit, nor ſupport their whole body, but for this wonderful inſtinct which nature has given them. They never lay more than two eggs, and ſeldom fewer. Their young ones cannot fly till they are almoſt full grown; but will run prodigiouſly faſt. *Dampier.*

their feathers grow; but it requires ten or twelve months before their body attains its full ſize, and then they aſſume their fine colour, whoſe tints are faint when they are young, and grow deeper and brighter as they advance in age *. According to Cateſby, two years paſs before they acquire the whole of their beautiful red colour. Father Dutertre makes the ſame remark †. But whatever be the progreſs of this tint in the plumage, the wing firſt acquires the colour, and is always brighter than the other parts. The red afterwards ſpreads from the wing to the rump, then to the back and the breaſt, and as far as the neck: only in ſome individuals there are ſlight varieties of ſhades, which ſeem to follow the differences of climate: for example, the Flamingo of Senegal ſeemed to have a deep red, and that of Cayenne inclined to orange; but that variation was not enough to conſtitute two ſpecies, as Barrere has done.

Their food is in every country nearly the ſame. They eat ſhell-fiſh, fiſh-ſpawn, and aquatic inſects; they ſeek them in the mud, into which they thruſt their bill and part of their head; at

* They differ in colour, their plumage being white when they are young; then, in proportion as they grow, they become roſe coloured; and laſtly, when aged, they are entirely carnation. *De Laet, and Labat.*

† "The young are much whiter than the old ones; they "incline to red as they grow old: I have ſeen ſome alſo which had "their wings mixed with red, black, and white feathers; I believe "that theſe are males."

the

the ſame time they continually puſh their feet downwards, to carry the prey with the ſlime to their bill, which is fitted by its indenting to retain any ſubſtance. It is a ſmall ſeed, ſays Cateſby, like millet, that they bring up by thus puddling in the mire. But it probably is nothing elſe than the egg of ſome inſect; for the flies and gnats are ſurely as abundant in the overflowed plains of America as in the low grounds of the north, where Maupertuis ſaw whole lakes covered with ſuch eggs, reſembling the grains of millet *. In the iſlands of the new world, theſe birds may find abundance of this ſort of food; but on the coaſts of Europe they ſubſiſt on fiſh, the indentings of their bill ſerving like teeth to hold the ſlippery prey.

They appear to prefer the ſea-ſhore: if they are ſeen on rivers, ſuch as the Rhone †, it is never far from their mouth. They haunt more conſtantly the inlets, ſalt-marſhes, and low coaſts; and it has been obſerved, that in rearing them they require ſalt-water to drink ‡.

Theſe birds always go in flocks; and to fiſh, they naturally form themſelves into a line, which at a diſtance has a ſingular appearance, like a file of ſoldiers §. This propenſity to diſpoſe themſelves in ranks ſtill adheres to them when,

* Œuvres de Maupertuis, *tom.* iii. *p.* 116.
† Peireſc. vita, *lib.* ii.
‡ De Laet, Labat, and Charlevoix.
§ Hiſt. Gen. des Voy. *tom.* xii. *p.* 229.

placed

placed one againſt another, they repoſe on the beach *. They ſtation ſentinels and keep a ſort of guard, as uſual with all gregarious birds. When they are engaged in fiſhing, their head plunged in the water, one of them remains ſentry, keeping his head erect †: on the leaſt menace of danger, he gives a loud cry, audible at a great diſtance, and much like the ſound of a trumpet ‡; inſtantly the whole flock riſes, and preſerves in its flight an order ſimilar to that of cranes. Yet if theſe birds be ſuddenly ſurprized, they remain ſtupid and motionleſs thro' fear, and afford the fowler time to knock them down

* They uſually reſt upon their legs, one againſt the other, in a ſingle line; in this ſituation any perſon at the diſtance of half a mile would take them for a brick wall, becauſe they have exactly the ſame colour. *Roberts, Hiſt. Gen. des Voy. tom.* xi. *p.* 364.

† "They are conſtantly on their guard againſt any ſurprizal by "their enemies, and it is alledged that ſome ſtand as ſentinels while "the reſt are occupied in ſearching for food; beſides, they are ſaid "to ſmell powder at a diſtance, and are therefore approached with "difficulty. Our old buccaneers employed a ſtratagem for killing "them ſimilar to what the people of Florida are ſaid to uſe, in "order to approach the deer; they covered themſelves with ox-"ſkins, and advanced againſt the wind upon the Flamingos, which, "being accuſtomed to ſee oxen feed in the ſavannas, are not intimi-"dated, and thus the hunters can eaſily fire at them." *Charlevoix.*

‡ "Theſe birds have ſuch a ſtrong voice, that any perſon hear-"ing them would ſuppoſe they were trumpets ſounding; and while "they have their head concealed, dabbling in the water, like the "ſwans, to find there ſubſiſtence, there is always one that continues "erect as ſentinel, its neck extended, its eye watchful, its head "roving: as ſoon as it perceives a perſon, it ſounds the trumpet, "gives alarm to its diſtrict, riſes the firſt on wing, and all the "reſt follow it." *Idem.*

down one after another. Of this we are informed by Dutertre, and it may alſo reconcile the oppoſite accounts of navigators; ſome repreſenting the Flamingos as timorous birds *, which can hardly be approached †, while others aſſert, that they are heavy and ſtupid ‡, and ſuffer themſelves to be killed one after another ||.

Their fleſh is highly eſteemed. Cateſby compares its delicacy to that of the partridge: Dampier ſays, that it has a very good flavour, though lean: Dutertre found it to be excellent, notwithſtanding a ſlight marſhy taſte. Moſt travellers give the ſame account §. M. de Peireſc is almoſt the only one who aſſerts that it is bad: but, beſides the difference produced by climate, theſe

* "Their hearing and ſmell are ſo acute, that they can wind at "a great diſtance the fowlers and the fire-arms; and alſo, to avoid "all ſurprize, they prefer alighting on open places in the midſt "of marſhes, whence they can deſcry their enemies from afar, and "there is always one of the band that keeps watch." Rochefort, *Hiſt. des Antilles*.

† Theſe birds are difficult to approach: Dampier and two other fowlers having placed themſelves in the evening near their retreat, ſurprized them ſo ſucceſsfully as to kill fourteen at three ſhots. *Roberts*, in the *Hiſt. Gen. des Voy. tom.* ii. *p.* 364.

‡ "*Stolida Avis*," ſays Klein.

|| A man concealing himſelf from their ſight, may kill a great number of them; for the report of a diſcharge does not make them ſtir, nor are they alarmed at ſeeing their companions killed in the midſt of them; but they remain with their eyes fixed, and, as it were, ſtruck with aſtoniſhment, till they are all deſtroyed, or at leaſt moſt of them. *Cateſby*.

§ Theſe birds are numerous near the Cape; their fleſh is wholeſome and ſavoury; their tongue is ſaid to have the taſte of marrow. *Hiſt. Gen. des Voy, tom.* v. *p.* 201.—They are fat, and their fleſh is delicate. *Rochefort*.

birds

birds muſt be exhauſted and lean with fatigue, when they arrive on our coaſts. The ancients ſpeak of them as being exquiſite game *. Philoſtratus reckons them among the delicacies of entertainments †. Juvenal, upbraiding the Romans with their waſteful luxury, ſays, that they cover their tables with the rare birds of Scythia, and with the *phœnicopterus*. Apicius deſcribes the ſcientific mode of ſeaſoning them ‡; and it was this man, *who*, ſays Pliny, *was the deepeſt abyſs of waſtefulneſs* ||, that diſcovered in the tongue of the Flamingo that exquiſite reliſh, which recommended it ſo highly to epicures §. Some of our navigators,

* When Caligula had reached ſuch a pitch of folly as to fancy himſelf a divinity, he choſe the *phœnicopterus* and the peacock as the moſt exquiſite victims to be offered up to his godſhip; and the day before he was maſſacred, ſays Suetonius, he was beſprinkled at a ſacrifice with the blood of a *phœnicopterus*. *In Vit. Calig. c.* 57.

† Vita Apollon. *lib.* viii.

‡ " Cleanſe, waſh, and truſs the *phœnicopterus*; put it into a " kettle; add water, ſalt, and a little vinegar. At half boiling, tie " in it a bunch of leeks and coriander, that it may ſtew: near boil- " ing, drop into it ſpiced wine, and colour the mixture. Put into " a mortar pepper, cummin, coriander, the root of laſer, mint, " rue; pound theſe, pour on vinegar, add walnut-date. Pour " on it its own gravy, and turn the whole back into the ſame ket- " tle: cloſe it with ſtarch; pour on the gravy, and carry it in." ——*Otherwiſe*: " Roaſt the bird; grind pepper, loveage, parſley- " ſeeds, ſeſame, ſpiced wine, wild parſley, mint, dry onions, " walnut-dates; and temper the whole with honey, wine, pickle, " vinegar, oil, and ſpiced wine." *De Obſon. & Condim.* lib. vi. 7.

|| *Phœnicopteri linguam præcipui eſſe ſaporis Apicius docuit, nepotum omnium altiſſimus gurges.*

§ Lampridius reckons among the extravagancies of Heliogabalus, his ordering for his table diſhes filled with the tongues of the *phœnicopterus*.

navigators, whether from the prejudice derived from antiquity, or from their own experience, commend the delicacy of that morſel *.

The ſkin of theſe birds, which is well clothed with down, ſerves for the ſame purpoſes as that of the ſwan †. They may be eaſily tamed, either by taking them young from the neſt ‡, or by enſnaring the adults in gins, or any other way ‖; for

phœnicopterus. Suetonius ſays, that Vitellius bringing together the delicacies of all the parts of the world, cauſed to be ſerved up at his entertainments, at once, the livers of ſcari, the roes of murænæ, the brains of pheaſants and peacocks, and the tongues of *phœnicopters*; and Martial, upbraiding the Romans for their deſtructive taſte, makes this bird complain in the following lines:

Dat mihi penna rubens nomen; ſed lingua guloſis
Noſtra ſapit: quid, ſi garrula lingua foret?

* But above all, their tongue paſſes for the moſt exquiſite morſel that can be eaten. *Dutertre*.—Their tongue is very large, and near the root there is a lump of fat, which makes an excellent morſel. A plate of Flamingos tongues, according to Dampier, would be a diſh fit for the king's table. *Roberts*.

† They are flayed, and their ſkins are made into excellent fur, which would be very uſeful for perſons troubled with a cold debilitated ſtomach. *Dutertre*.

‡ I wiſhed much to have young ones to tame; for this ſucceeds, and I have ſeen ſome very familiar at the houſe of the governor of Martinico... In leſs than four or five days the young ones which we took came to eat out of our hands; yet I kept them always faſtened, without truſting much to them; for one which was looſened fled as ſwift as a hare, and my dog could with difficulty overtake it. *Labat*.

‖ "A wild Flamingo having alighted in a mere near our dwel-
"ling, a tame Flamingo was driven thither, and the negro boy who
"had the charge of it, carried the trough in which it fed to the edge
"of the mere, at ſome diſtance, and concealed himſelf hard by:
"the tame Flamingo ſoon approached, and the wild one followed,
"and deſiring to partake in the repaſt, it began to fight and chaſe
"its

for though very wild in the ſtate of liberty, the Flamingo, when once caught, is ſubmiſſive, and even affectionate. In fact, it has rather a timorous than a lofty ſpirit; and the ſame fear, which prompts it to fly, ſubdues it after it is taken. The Indians have completely tamed them. M. De-Peireſc ſaw them very familiar, ſince he gives ſeveral particulars of their domeſtic life. They eat more in the night, he ſays, than in the day, and ſoak their bread in water. They are ſenſible to cold, and creep ſo cloſe to the fire as to burn their feet; and when one leg is diſabled,

" its rival; ſo that the little negro, who lay on the ground as if he
" had been dead, ſnatched the opportunity to catch the bird by
" ſeizing its legs. One of theſe Flamingos, caught nearly in the
" ſame manner, lived fifteen years in our court-yard; it continued
" on good terms with the poultry, and even careſſed its fellow-
" lodgers, the turkies and ducks, by ſcratching their back with its
" bill. It fed on the ſame grain as the other poultry, provided that
" it was wetted with a little water; it could eat only by turning the
" bill to lay hold of its food ſidewiſe: it dabbled like the ducks,
" and knew thoſe perſons ſo well who uſually took care of it, that
" when hungry it went to them and pulled their clothes with its
" bill: it often kept itſelf mid-legs in water, ſeldom changing its
" place, and plunging from time to time its head to the bottom, to
" catch ſmall fiſhes, which it prefers to grain. Sometimes it ran
" on the water, ſtriking it alternately with its claws, and ſupport-
" ing itſelf by the motion of its wings half extended. It was not
" fond of ſwimming, but only of puddling with its feet in ſhallow
" water. When it fell, it roſe with great difficulty; and accordingly
" it never reſted on its belly to ſleep: it only drew one of its legs
" under it, leaned upon the other, paſſed its neck upon its back,
" and concealed its head between the end of its wing and its body,
" always on the ſide oppoſite to the leg which was bent." *Letter from M. Pommies, commander of militia in the diſtrict of Nipes, at St. Domingo, communicated by the Chevalier Deſhayes.*

they

they walk on the other, and aſſiſt their motion by uſing their bill like a crutch on the ground. They ſleep little, and reſt only on one leg, the other being drawn under the belly. Yet they are delicate, and difficult to rear in our climates: it appears even, that, though pliant to the habits of captivity, that ſtate is very unſuitable to their nature, ſince they cannot ſupport it long, but drag out a languiſhing exiſtence; for they never propagate when reduced to domeſtication.

END OF THE EIGHTH VOLUME.